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BUSINESS WEEK

Japanese businessmen
SPECIAL REPORT (Page 102)

A McGRAW-HILL PUBLICATION FIFTY CENTS APRIL 18, 1959

Under Donner and Gordon,
GM adapts to:
- New officers
- New ownership
- A new market
- New government pressures

(Companies)

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UNIVERSITY MICROFILMS
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PAYLOAD . . . tons at a gulp on Bower Roller Bearings

They call it strip mining . . . where payload is king and "don't spare the rig". Take this scraper: aided by a rugged 'dozer, it's pushloaded in mere minutes. Then, with tons of rock and earth on its back, it takes off cross-country . . . dumps the load . . . hustles back for more.

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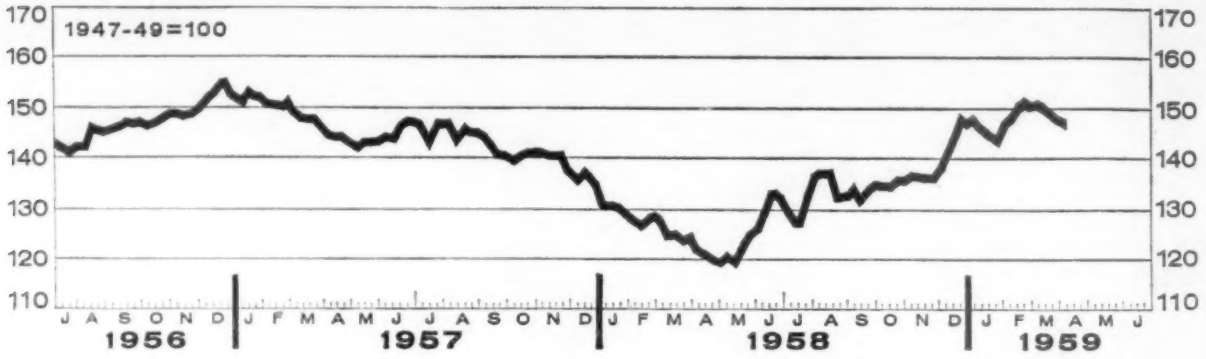
NUMBER 1546

FIGURES of the WEEK



	1946 Average	Year Ago	Month Ago	Week Ago	§ Latest Week
BUSINESS WEEK INDEX (chart)	**91.6**	**121.7**	**151.5**	**†148.6**	***147.9**
PRODUCTION					
Steel ingot (thous. of tons)	1,281	1,285	2,631	†2,641	**2,648**
Automobiles and trucks	62,880	110,663	168,020	†169,727	**169,811**
Engineering const. awards (Eng. News-Rec. 4-wk. daily av. in thous.)	$17,083	$67,950	$68,459	$64,886	**$63,952**
Electric power (millions of kilowatt-hours)	4,238	11,307	12,996	12,618	**12,604**
Crude oil and condensate (daily av., thous. of bbls.)	4,751	6,187	7,155	7,129	**7,127**
Bituminous coal (daily av., thous. of tons)	1,745	1,185	1,286	†1,320	**1,266**
Paperboard (tons)	167,269	256,970	307,440	295,358	**312,695**
TRADE					
Carloadings: mfrs., miscellaneous and l.c.l. (daily av., thous. of cars)	82	54	61	63	**63**
Carloadings: all others (daily av., thous. of cars)	53	35	38	38	**36**
Department store sales index (1947-49 = 100, not seasonally adjusted)	90	134	118	141	**117**
Business failures (Dun & Bradstreet, number)	22	342	311	284	**337**
PRICES					
Spot commodities, daily index (Moody's, Dec. 31, 1931 = 100)	311.9	394.7	388.2	390.6	**390.5**
Industrial raw materials, daily index (BLS, 1947-49 = 100)	††73.2	80.8	90.4	91.1	**91.0**
Foodstuffs, daily index (BLS, 1947-49 = 100)	††75.4	90.1	79.8	80.8	**81.3**
Print cloth (spot and nearby, yd.)	17.5¢	17.2¢	18.6¢	18.6¢	**18.6¢**
Finished steel, index (BLS, 1947-49 = 100)	††76.4	181.6	186.7	186.7	**186.7**
Scrap steel composite (Iron Age, ton)	$20.27	$33.50	$40.83	$36.50	**$35.17**
Copper (electrolytic, delivered price, E & MJ, lb.)	14.045¢	24.835¢	31.840¢	31.870¢	**31.675¢**
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$1.97	$2.30	$2.06	$2.10	**$2.13**
Cotton, daily price (middling, 1 in., 14 designated markets, lb.)	**30.56¢	34.58¢	34.35¢	34.50¢	**34.53¢**
Wool tops (Boston, lb.)	$1.51	$1.65	$1.63	$1.69	**$1.74**
FINANCE					
500 stocks composite, price index (S&P's, 1941-43 = 10)	17.08	41.99	56.45	56.35	**56.50**
Medium grade corporate bond yield (Baa issues, Moody's)	3.05%	4.66%	4.86%	4.84%	**4.83%**
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate)	¾–1%	2%	3⅜%	3⅜%	**3⅜%**
BANKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	††45,820	55,251	57,665	55,889	**56,717**
Total loans and investments, reporting member banks	††71,916	89,834	94,248	95,522	**95,168**
Commercial and agricultural loans, reporting member banks	††9,299	30,668	30,671	31,172	**31,021**
U. S. gov't guaranteed obligations held, reporting member banks	††49,879	28,055	30,608	30,543	**30,380**
Total federal reserve credit outstanding	23,888	24,638	26,976	27,151	**27,357**

MONTHLY FIGURES OF THE WEEK		1946 Average	Year Ago	Month Ago	Latest Month
Housing starts (in thousands)	**March**	55.9	81.4	89.0	**120.0**
Personal income (seasonally adjusted, in billions)	**March**	$179.3	$348.7	$365.4	**$368.6**
Farm income (seasonally adjusted, in billions)	**March**	$18.1	$18.2	$17.2	**$17.4**
Bank debits (in millions)	**March**	††$85,577	$203,870	$190,770	**$223,419**
Wholesale prices (U. S. Dept. of Labor BLS, 1947-49 = 100)	**March**	78.7	119.7	119.5	119.6
Employment (in millions)	**March**	55.2	62.3	62.7	**63.8**
Unemployment (in millions)	**March**	2.3	5.2	4.7	**4.4**
Average weekly earnings in manufacturing	**March**	$43.82	$81.45	$88.00	**$88.62**
Imports (in millions)	**February**	$412	$956	$1,154	**$1,118**
Retail sales (seasonally adjusted, in millions)	**February**	$8,541	$16,089	$17,454	**$17,552**

° *Preliminary, week ended April 11, 1959.*
† *Revised.*
†† *Estimate.*
** *Ten designated markets, middling ⅛ in.*
§ *Date for 'Latest Week' on each series on request.*

THE PICTURES—Cover—Gene Pyle; 31—W. W.; 32—Herb Kratovil; 47—W. W.; 60—Lukens Steel Co.; 68, 71, 72—Ron Appelbe; 83—(top) Dayton Rubber Co., (bot.) Carl Byoir & Associates; 85—U. P. I.; 102, 103, 104, 110, 114—John Launois; 107—Frank Ronan; 126—W. W.; 132, 134—Tom O'Reilly; 141—Celanese Corp. of America; 142—(top row) Grant Compton, (second row lt.) W. W., (second row cen.) G. M., (second row rt.) du Pont, (bot. lt. & bot. cen.) G. M., (bot. rt.) du Pont; 143—(top lt.) du Pont, (top cen.) Dick Wolters, (top rt.) G. M., (bot. lt.) du Pont, (bot. cen.) G. M., (bot. rt.) W. W.; 164, 165, 167, 169—Marilyn Silverstone; 184, 185, 186, 188—Ron Appelbe.

WHAT IS TODAY'S MOST PERPLEXING PENSION PROBLEM?

The problem for corporations is to invest today's contributions for tomorrow's benefits in such a way as to compensate—insofar as possible—for changes in purchasing power and living standards. The best answer is balance and selection in the investment program based on extensive research directed at this problem. Our Pension Trust Division has gained its reputation through successful management of pension and profit-sharing trusts—large and small. Individual attention to each fund has earned Bankers Trust its top position in the field. For further information, write to us at 16 Wall Street, New York 15, N. Y.

BANKERS TRUST COMPANY, NEW YORK

The lassies with the brooms sweep in to make this the country's Curling capital...

Wausau Story

by **ELMER FREYTAG**
Chicago, Illinois
Director, United States Curling Assn.

"Armed with their brooms, 128 bonnie members of the United States Women's Curling Association gathered at the Wausau Curling Club for the 11th annual national title bonspiel. I was there to watch this tournament. I never miss a chance to watch—or play—a curling match.

"I never miss a chance to visit Wausau either. I like to be there. The curling's fine. The curlers are great. And, though titles may fall, the game's cherished traditions of fairness and friendliness are always upheld.

"This spirit is part of Wausau itself. I've been sure of this ever since I accompanied 20 curlers from Scotland on a tour of midwest clubs several years ago. Officially we were guests of the Curling Club . . . but everybody we met in Wausau was our host. While we traveled, we were covered by an Employers Mutuals' insurance policy. With this first-hand knowledge of how Wausau lives, plays and works, I can well understand why Employers Mutuals are known as 'Good people to do business with'."

Sweepers smooth the way when the stone (a 41½ pound block of polished Scottish granite) is sent curling down the sheet of ice toward the "house" (the target circles). This ancient Scottish game becomes more popular in the United States every season. Besides men's and women's clubs in Wausau, there's an active group of high school curlers.

Table-top curling. In the lounge of the Wausau Curling Club Mr. Freytag replays a game with members from several bonspiel rinks. Twenty clubs throughout the United States were represented at this Wausau tournament.

All curlers have a devotion to the game . . . but Mr. Freytag's devotion has been especially recognized. He received curling's first "Award of Merit" for his work and interest in the country's most active and distinguished curling organizations. We thank you, Mr. Freytag, for your appraisal of our curling, our city, and our company.

Employers Mutuals of Wausau has offices all across the country. We write all forms of fire, group and casualty insurance (including automobile). In the field of workmen's compensation *we are one of the largest. We are proud of our reputation for fast claim service and our experience in preventing accidents. Consult your telephone directory for your nearest representative or write us in Wausau, Wisconsin.*

Employers Mutuals *of* Wausau

"Good people to do business with"

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READERS REPORT

No Need for Slums

Dear Sir:

Your article Downtown Rises Above "Gray Belt," [BW—Feb.21 '59,p29] should be most provocative.

Having for over 50 years watched the trend in many of the larger cities of America and Europe, I heartily agree that "the gray belt" is an area of no return, but it has its place, and with proper planning and control by city authorities, can be prevented from becoming a slum area.

The slum tenant is a degenerate, and contributes constantly to the slum conditions. No matter under what conditions such tenants live, their living conditions would be slumlike.

If city authorities would insist upon certain minimum conditions of maintenance of properties, they would force the landlords to control the type of tenants and their living conditions, and drive the slum creator further out into the open spaces where the concentration would be less objectionable. . . .

LIONEL L. JACOBS
MANUFACTURERS' AGENTS
WAYNE, PA.

Against Oil Quotas

Dear Sir:

The curb on oil imports [BW—Mar.14'59,p38] will pay off the oil barons of the southwest for the contributions they make to both political parties at the expense of everyone who lives in the heating districts of the East Coastal area.

It is not for the interests of national defense—quite the contrary. Our national defense needs would be served best by leaving some of our oil in the ground in case of war shutting off all imports.

EUGENE H. CLAPP
PENOBSCOT CHEMICAL FIBRE CO.
BOSTON, MASS.

Consumer Data

Dear Sir:

I enjoyed reading the recent article, Feeding a Service-Hungry U. S. [BW—Feb.28'59,p71] about the marketing of services to consumers. This is an area of marketing which has been neglected in business literature and deserves more attention.

I presume that your source of information about the extent of

Electric-muscled robots work 15-hour day for $96¹ a week

Dow Brewery officials listened to their Materials Handling Man... and increased their profits

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Figures in the headline prove how it paid Dow Brewery of Montreal to carry out the ideas of R. G. Irwin, their materials handling engineer.

Dow Brewery "employs" 22 Automatic battery-powered electric trucks to carry all raw materials and handle the beer from the pallet loading machine to the delivery trucks. These hustlers move 335,000 cases daily —1,484,340 tons a year—and not a sore back in the bunch!

No doubt your materials handling man can make similar savings in your plant ...by handling materials with the cleaner, quieter, electric-driven truck...the most efficiently powered truck your money can buy. As the world's leading builders of such equipment, we can prove that investments in modern materials handling concepts are quickly written off. Just mail the coupon!

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Electric Automatic® Industrial Trucks

Cost less to own... less to operate

We sponsor this series because modern materials handling is one way to beat fixed costs...and ease the the squeeze on profits.

AUTOMATIC TRANSPORTATION COMPANY
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93 West 87th Street, Department D-9,
Chicago 20, Illinois

☐ Mail examples of how other companies received high returns on their investments in modern materials handling equipment.

☐ Explain convenient plans for lease or purchase of Automatic Industrial Trucks.

Name_____ Title_____
Firm Name_____
Address_____
City & Zone_____ State_____

consumer expenditures for services is the Department of Commerce. It should be pointed out, however, that these data are compiled for use in the national income accounting system—and do not necessarily represent out-of-pocket consumer "expenditures" in the marketing sense. For example, consumer service expenditures include "the rental value of owner-occupied homes," "services furnished without payment by financial intermediaries . . .," and "net cash remittances to foreign countries"—none of which is sold or marketed to consumers.

When these data are revised for greater usefulness for marketing purposes, it is found that service expenditures constitute about 34% of total consumer expenditures. The trend toward increased consumer spending for services and the growth patterns within service industries agree with the comments in the article.

DONALD D. PARKER
LECTURER IN MARKETING
COLLEGE OF BUSINESS ADMINISTRATION
UNIVERSITY OF WASHINGTON
SEATTLE, WASH.

Shorter Work Week

Dear Sir:

Why Unemployed Still Don't Have Jobs [BW—Mar.7'59,p25] concludes with the following inconclusive—but potentially affirmative, constructive remark: "And if demand can't be increased, there'll be still more cry for a shorter work week."

"More cry," or not, the long-range tendency is toward a shorter work week. The irreversible, universal trend offers a progressively increasing virgin, unexplored frontier of potentially moral, amoral, unmoral leisure-parasitism, the bane of all past civilization. . . .

PHILIP WEISS
ST. LOUIS, MO.

Leader in Field

Dear Sir:

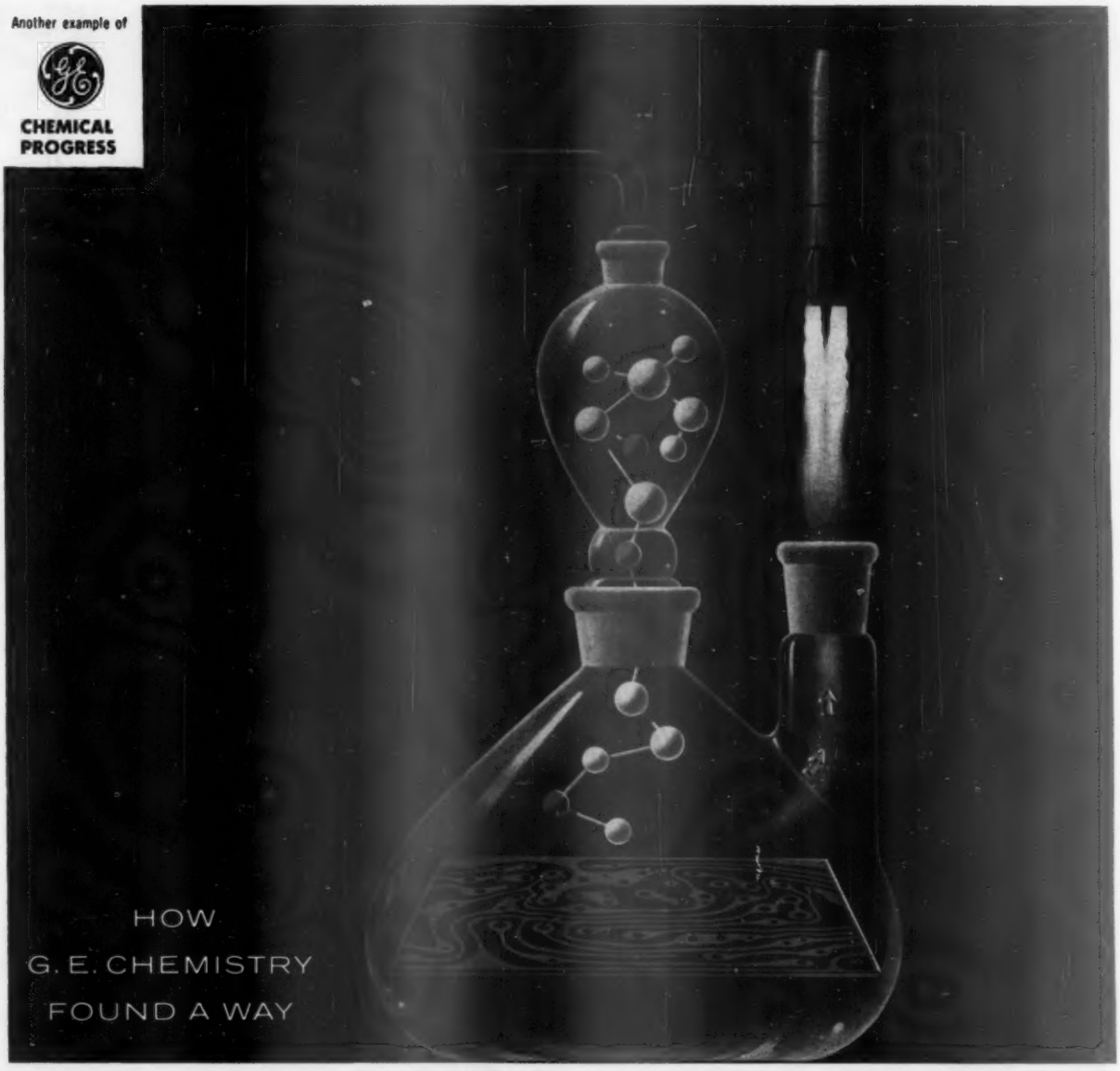
Congratulations to your staff on a most interesting report on the Chicago newspaper situation [BW —Feb.28'59,p56].

I find only one minor fault—the Miami Herald published more food advertising in 1958 than any other newspaper. . . .

LESTER R. BARNHILL
PROMOTION MANAGER
THE MIAMI HERALD
MIAMI, FLA.

Another example of

CHEMICAL PROGRESS



TO GIVE ATLAS A TROUBLE-FREE NERVOUS SYSTEM

When the four-and-a-half ton ATLAS missile was launched last December, it became the largest man-made object ever put into orbit. Much of the credit for getting it up there goes to the missile's electronic nervous system — its incredibly accurate guidance equipment.

To insulate and support this intricate circuitry, missilemen needed printed circuit boards that could stand up to the harsh requirements of a space vehicle...and do it with absolute, unfailing reliability. After exhaustive testing, they picked G.E. 11558 Textolite® laminate, a copper-clad epoxy-glass circuit board.

These laminates met some tough specifications: You can dip them in molten solder at 500° F. They won't blister. Immerse them in concentrated nitric acid and they still won't loosen their copper bond.

The special properties of this and other Textolite laminates were developed through extensive chemical research by General Electric. This continuing program of chemical investigation makes it possible for G.E. to produce new and improved materials for industry and national defense.

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Silicone Fluids, Emulsions, Resins, Rubbers • Phenolic Molding Powders, Foundry Resins, Industrial Resins • Fused Magnesium Oxide • METHYLON® Coating Intermediates • LEXAN® Polycarbonate Resins • Mica Products, Varnished Cloths and Papers, Electrical Insulating Paints, Varnishes, Permafils, Wire Enamels, IRRATHENE® Insulation • TEXTOLITE® Decorative and Industrial Laminates • Man-Made Diamonds • Vacuum Melted Alloys • CARBOLOY® Cutting Tools • Permanent Magnets • Wire and Cable • Conduit Products • Wiring Devices • West Coast (Anaheim, California): GLYPTAL® Alkyd Resins • Polyester Resins

Power-packed WHITE 9064 operated by The Goff-Kirby Co., Cleveland, Ohio, delivers a 6-yard load of concrete for new super highway.

The WHITE 9064...built the way you need it

SUPER HAULER

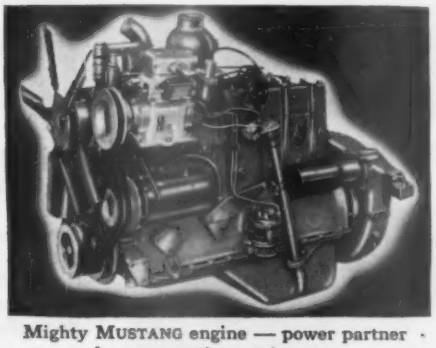
for New Super Highway Construction

The big job of building America's $50 billion super highway system calls for tough men . . . even tougher trucks.

Super trucks with real "guts" and muscle . . . that can climb an excavation like a mountain goat, pull like an elephant, and never say quit no matter how rough the going!

Like this big, bold and brawny WHITE that packs a king-size load of spinning mixed concrete wherever it's needed, takes all the rugged slam-bang its job can hand it . . . and still keeps coming back for more, day after day, year after year!

Its compact front-end design (only 62" from centerline of front axle to back of cab) shifts more weight to the front axle, can

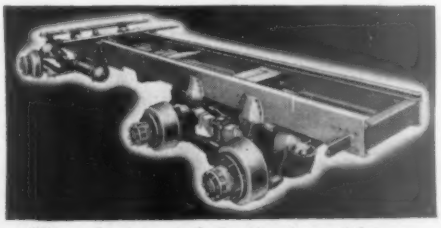


Mighty MUSTANG engine — power partner for construction equipment.

mean up to a full yard more payload! Its shorter wheelbase makes it much more maneuverable. And the instant two-fisted power in the mighty MUSTANG engine handles the full payloads with ease — and keeps the top-capacity power take-off spinning the big load till it's ready to pour.

The rugged double-channel frame is crammed with extra "beef". Channels, heat-treated chrome-manganese side rails and tubular-steel cross members are all locked together with precision-fitted nuts and bolts.

There's a WHITE for every construction job — hauling, dumping, rigging — and every WHITE is loaded with famous WHITE quality and engineering skill. Built exactly the way the man who owns it wanted it built. With the exact dimensions, weight,



WHITE heat-treated, double-channel frame — 40% more rugged strength.

horsepower, transmission and axles for the precise performance he needs. That's why he swears by it. To him, it's not just a truck . . . it's his tailor-made WHITE!

You'll get that same kind of better, longer, more economical heavy-duty service from *your* WHITE . . . engineered to *your* job specifications and backed by WHITE SUPER-SERVICE SHOPS — the most completely equipped in the industry.

So take a close look at the whole WHITE *line. You'll be glad you did, in the long haul.*

THE WHITE MOTOR COMPANY
CLEVELAND 1, OHIO

Branches, distributors, dealers in all principal cities

WORLD LEADER IN HEAVY DUTY TRUCKS

WHITE

Products and Ideas that can pay off for you

KOPPERS

Here are some reports about Koppers products that should interest you; and some ideas, too—other people's ideas as well as ours—which have put Koppers products to good use. Maybe *you* can use some of these products and ideas to save money, improve a process, make a better package, increase sales or solve another industrial problem.

Dry ice lasts 3 days in Dylite Insulated Frozen Food Boxes

You're in a supermarket or dairy store, and there, right in the middle of the aisle, is a frozen food display box. It's in your way so you have to walk around it. You can't help seeing "Special—Pistachio Ice Cream" and you're trapped. You buy ice cream. Then you see that this freezer is unique. It can stand in the middle of the floor, forcing you to notice it because it needs no electrical wires. It works on plain dry ice. But dry ice evaporates. Must they fill it every day? No. The box is insulated with DYLITE®, an amazing foamed plastic developed by Koppers Plastics Division. It's so amazing, in fact, that the dry ice lasts *three days* before it loses its freezing power. You learn, too, that DYLITE containers used for shipping frozen foods need only 40% as much dry ice as do conventional containers.

DYLITE is strong, too. Completely waterproof and lighter than cork. And it's low cost. It can be molded to any shape or size . . . the perfect insulation for everything from ice buckets to refrigerator and freezer cabinets. Could be DYLITE is what you've been looking for. Check the coupon for the full story.

A modern Swiss Chalet from 12 Creosoted Poles

You sit inside this striking ski shelter at Greek Peak, N. Y., and you can watch the entire ski area through the wall of glass. Slanting up to the roof apex, serving as beams, are 12 massive creosoted poles. Black and handsome against the light brown of the ceiling boards, the creosoted poles are easily strong enough to support the large roof area, often heavy with snow. And because they are pressure-creosoted they'll last into the next century —with no maintenance.

Pole-type construction is one of the most inexpensive ways to build, costing up to half as much as conventional construction. It's excellent for warehouses, shelters, farm buildings, etc. These particular poles are yellow pine, pressure-treated at the Koppers Wood Preserving Division plant at Horseheads, N. Y. Had you considered pole-type construction? Return the coupon and find out more about it.

New "Fuelproof Sealer" makes old paving young again

The runway is weathered and worn from thousands of takeoffs and landings. "Sunlight, rain, snow and frost. That's what really does it," says the Airport Engineer. "Plus fuel spillage, which literally dissolves the bituminous paving." You step back as the applicator truck makes a pass, leaving behind it a velvety black 10-foot-wide strip of brand new runway surface. "But this is the answer," he gestures. "Koppers Pavement Sealer. We're sealing these runways at the rate of seven miles an hour. And in good weather the Sealer dries inside of two hours."

Koppers Pavement Sealer adds years of life to asphalt paving—preserves, protects and beautifies it. And because of its unique resistance to weather and petroleum products, it is ideal for airfield runways and aprons, parking lots, service stations, driveways, sidewalks, playgrounds and tennis courts. The Sealer can be applied with mechanical spraying equipment as it was in this case, or for smaller areas with a simple nylon-bristled push broom. And you don't have to heat it. Is pavement deterioration your problem? Then check the coupon below.

"Hush House" cuts jet roar to a whisper

A major problem of the jet age is noise—the tremendous, shattering roar of the jet engine. To better understand this problem, you visit the jet engine testing facilities of a large west coast aircraft manufacturer. There, engineers and experts in the field of acoustics tell you that unmuffled jet noise can ruin communications, frazzle nerves, tear concentration to shreds, even undermine health or cause deafness.

Then how are these engines worked on? How are they tested (sometimes for hours on end) at a heavily populated installation like this?

The answer is a "hush house"—a precision engineered acoustical test chamber which diverts and dissipates engine noise through a series of wave-shaped baffles in its air intake and exhaust stacks—and which stops noise from going through its walls and ceiling with thick acoustical panels. Even the thundering boom of an enclosed F-102A is reduced to a soft hum outside the cell.

The Sound Control Department of Koppers Metal Products Division designs and manufactures "hush houses" and a complete line of silencers and acoustical systems for all industry, including silencers for gas turbines and snort valves, machinery enclosures, silencers for air conditioning systems, and audiometric rooms for hospital and clinical tests. Is noise your problem? Why not check the coupon?

Vat-dye kit gives bright new life to faded fabrics

This is the "Sani-Vat" Dye Kit—a do-it-yourself process for hospitals, hotels and other institutions that want to give faded linens, uniforms, drapes and napery a colorful, new lease on life. With it you can vat-dye fabrics with *permanent* colors, using normal institutional laundry equipment. Far superior to any other type of fabric dye, vat dyes remain color-fast in spite of frequent washing, sunlight, bleaching, dry cleaning and hot pressing. The "Sani-Vat" Dye Kit was developed by Koppers Chemicals and Dyestuffs Division. Perhaps it can save you money. Check the coupon.

KOPPERS

Divisions: Chemicals & Dyestuffs • Engineering & Construction • Gas & Coke
Metal Products • Plastics • Tar Products • Wood Preserving • International

PUT THESE IDEAS TO USE NOW!

To: Fred C. Foy, President
Koppers Company, Inc., Room 1424A
Koppers Bldg., Pittsburgh 19, Pa.

Please send me further information on the following money-saving products and ideas:

- ☐ DYLITE EXPANDABLE POLYSTYRENE
- ☐ PAVEMENT SEALER
- ☐ INDUSTRIAL SOUND CONTROL
- ☐ VAT DYES AND "SANI-VAT" KIT
- ☐ POLE-TYPE CONSTRUCTION

Name_____
Address_____
City_____ **Zone**____ **State**____
Occupation or Job Title_____

Why Lockheed built the JetStar—
World's fastest corporate plane

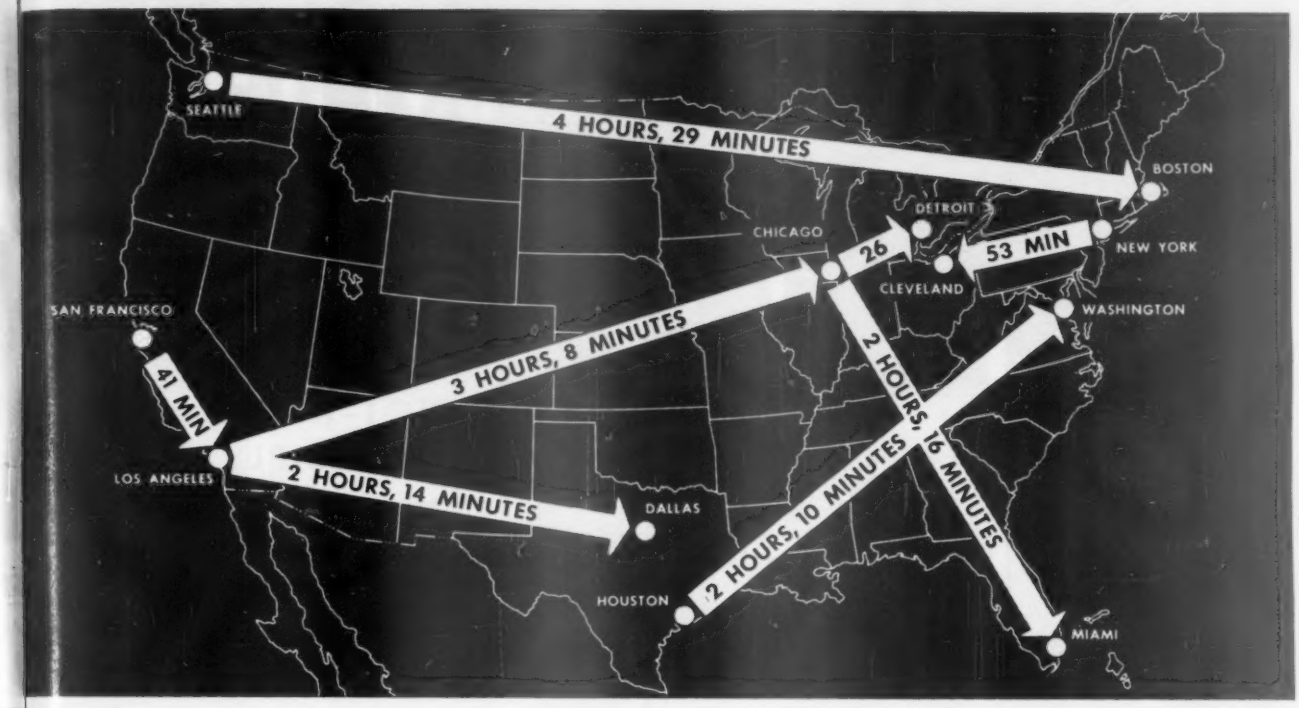
Faster by 200 miles-per-hour than piston-engine and turboprop planes, the new Lockheed JetStar obsoletes all other corporate aircraft.

In addition to matching the trans-continental non-stop speed of the big jet airliners, the JetStar also has good short-field capabilities equaling those of many other business aircraft. A 200-mile trip is only a 23-minute flight in a JetStar. And you leave at *your* convenience.

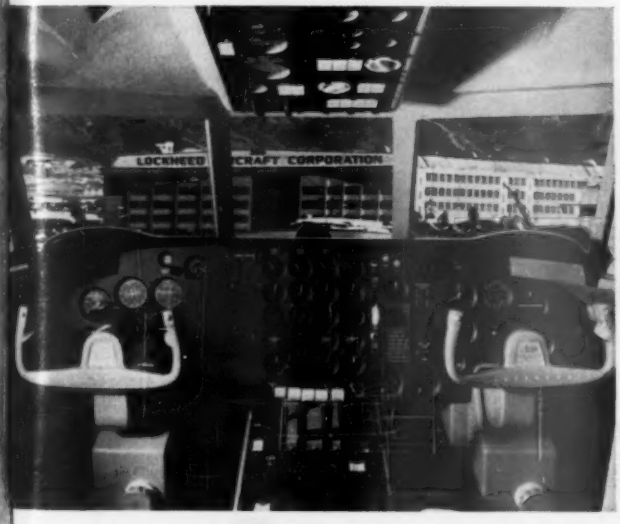
The JetStar's four-engine reliability and over-the-weather altitude performance (up to 45,000 feet) enables it to speed executives and technical personnel to their destinations, safely and comfortably—when other corporate planes are grounded.

Backed by Lockheed's quarter-century of experience in building history-making transports, the JetStar was designed to provide Jet Age decision-makers with the swift mobility demanded by today's fast-paced events.

Now in production at Lockheed's Georgia Division, the JetStar is the world's fastest transportation for the world's busiest men.



One-day round trips that take two or more days in present corporate aircraft are easy in a JetStar. Map shows typical flights.



Roomy and efficient JetStar cockpit has adjustable seats, dual flight controls and instrument groupings, weather radar, and broad, high-visibility windshield.

Fully pressurized and air-conditioned, the JetStar's cabin is quiet and vibration-free in flight. Wide choice of customized interiors, each with galley and lavatory.

For complete information about the JetStar, write: JetStar Commercial Sales, Lockheed Georgia Division, Marietta, Georgia

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WITH A DEVILBISS PAINT HEATER

DEVILBISS HOT-WATER PRINCIPLE

Diagram shows how the DeVilbiss hot-spray method uses water as a temperature equalizer. The heating action of forced hot-water circulation is fast, yet gentle and safe. Uniform paint temperatures are maintained without "hot spots" or the danger of thermal override. Paint can never be overheated to cause scorching, hardening, or discoloration.

Circulating hot water heats paint gently, quickly, and keeps it hot all the way to the gun

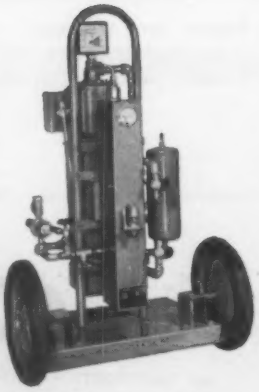
Paints, like certain foods, scorch quickly—can't stand an intense, direct-heat.

The DeVilbiss Paint Heater with its water jacket, like your double boiler, is the only method that applies a gentle heat to eliminate "hot spots." There is no possibility of overheating or hardening paint, because the water serves as a temperature equalizer between the heat source and the paint.

An exclusive heat-jacketed hose, with circulating hot water, maintains the proper temperature of the paint right up to the spray gun.

Only water is recirculated in a DeVilbiss system—there is no need for repeated circulation of paint in order to reheat it.

For hot spray at its best, check the yellow pages of the phone book for your DeVilbiss representative and ask for a demonstration of the DeVilbiss Paint Heater—the safe, sure way to improve painting quality, reduce overspray, apply heavier coats, and make the job of application easier.

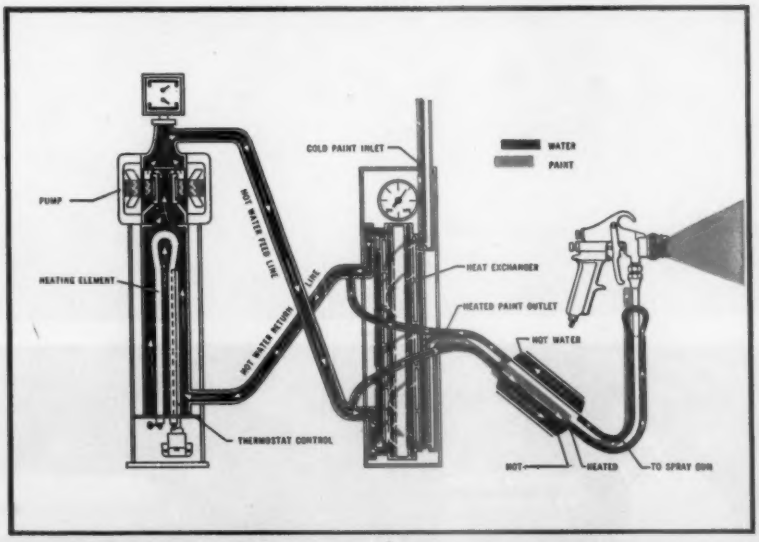


DeVilbiss Portable Paint Heater lets you take hot spray to the job. Hooks into any conventional spray outfit. Units for production-line installation also available.

YOU CAN'T *SCORCH* PAINT!

DIRECT-HEAT PRINCIPLE

Exposing paint directly to the metal heating medium—as shown in diagram representing ordinary paint heaters—results in higher temperatures at the point of heat transfer. And although the heating element may be thermostatically controlled, when the paint stops circulating, thermal override often causes scorched, hardened or discolored material.



Water is heated in compact electric unit (left), and circulated through heat exchanger (center). Paint rapidly reaches a controlled temperature in the exchanger, as it spirals through a passage surrounded by hot water. Water-jacketed hose (right) keeps the paint hot as it flows up to the gun.

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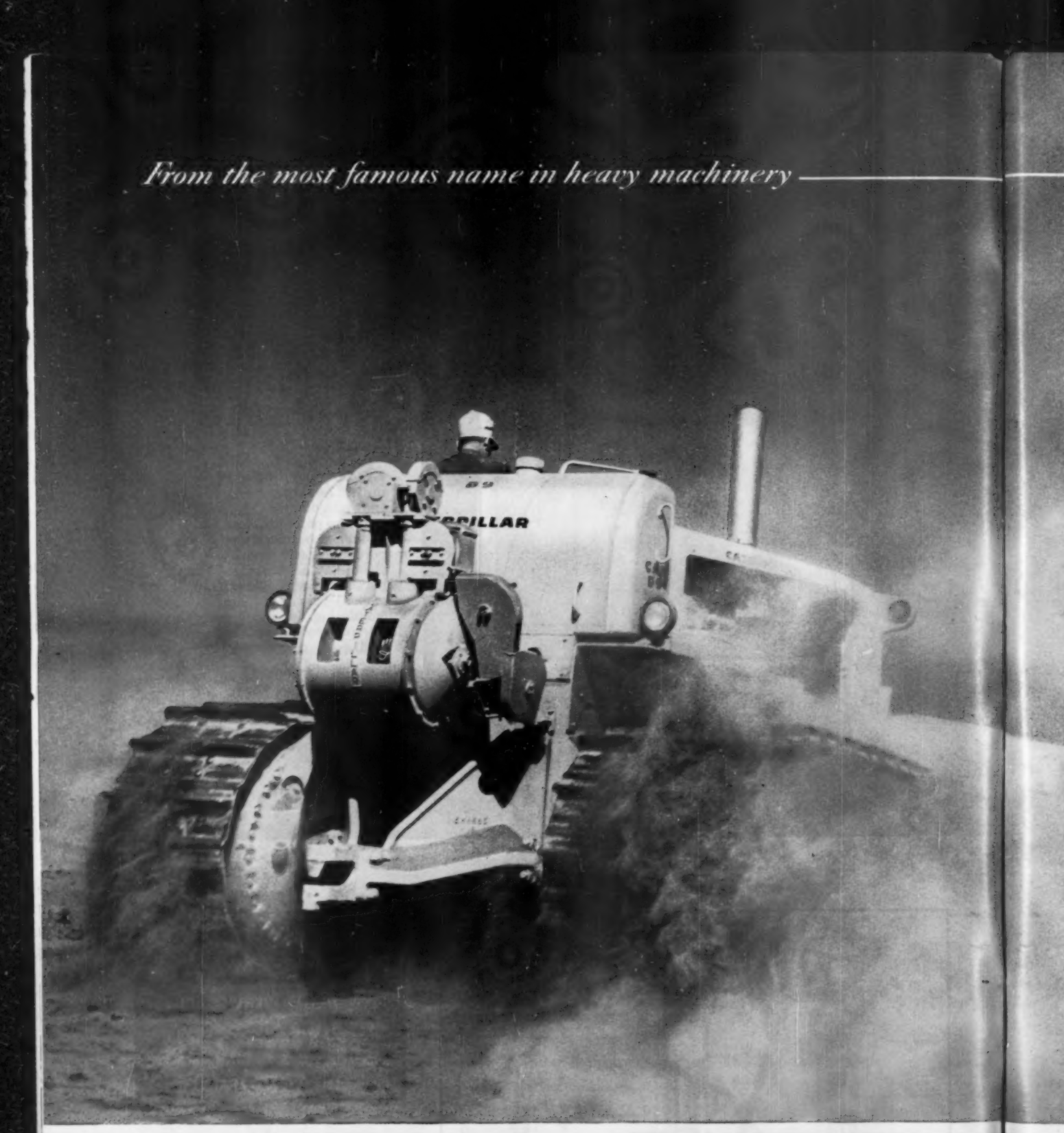

Discover the difference in Sylvania...

Sylvania light bulbs for the home are made by the company that pioneered many firsts in lighting.

Sylvania Silver White Mercury Lamps give you 16% more light than other types.

"Performance is what counts in Cat Machines and in plant equipment—that's why we use Sylvania fluorescent lighting!"

Walter Swardenski,
Director of Purchasing, Caterpillar Tractor Co.

Famous for performance of its products, Caterpillar Tractor Co. is equally careful about its plant equipment. No wonder Caterpillar chose fluorescent plant lighting by Sylvania—the leader in lighting.

Today Sylvania Fluorescents give you greater performance and more light per dollar than any fluorescent lamps ever made, due to extraordinary new developments of the Sylvania Laboratories. They produce far more light from the same wattage . . . they burn brighter throughout useful lamp life . . . they offer more light at lower cost than all other brands. Consistently ahead in fluorescent lamp improvements, Sylvania has grown at a rate many times faster than the entire industry during the last ten years.

You'll discover the same kind of superiority in Sylvania mercury lamps for streets, highways, airports and in Sylvania light bulbs for your home.

For the full story on how Sylvania gives you more light at lower cost, write for free booklet, "How to make lighting a better tool for profits."

SYLVANIA LIGHTING PRODUCTS
Dept. 9L-1404, 60 Boston Street, Salem, Mass.
In Canada: Sylvania Electric (Canada) Ltd.
P. O. Box 1190, Station "O," Montreal 9

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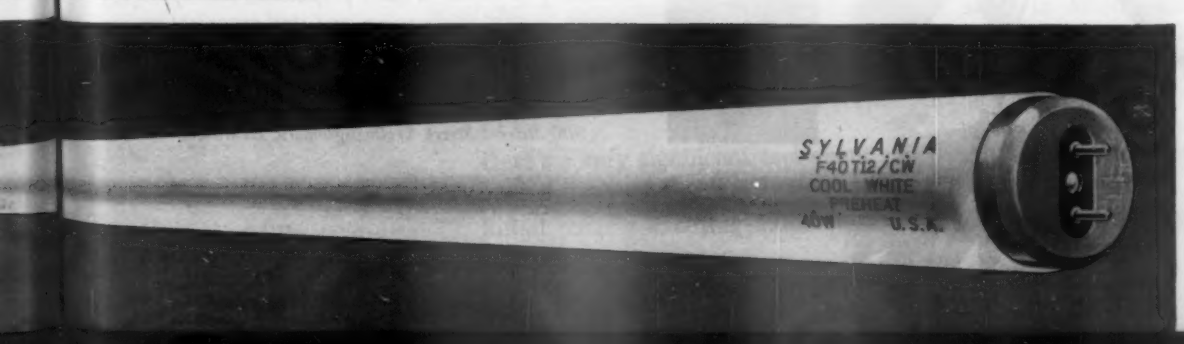

Sylvania Fluorescent lamps maintain more than 7% greater output throughout useful lamp life.

"The Fall of Icarus", by the 18th century illustrator Picart, is an imaginative conception, based on Greek mythology, of space propulsion by muscle power. This interpretation of it by wood engraving is one in a series of similar works undertaken especially for Hercules by Brussel-Smith, noted graphic artist.

IMAGINATION IN SPACE

Since Creation, man has looked out on space. At first, unknowing and incurious; then with the beginnings of understanding; now free and able to explore. Yet to move in space calls for wholly new concepts of energy.

This, then, is the working philosophy of Hercules in chemical propulsion: To design and manufacture highly concentrated packages of energy as propellants and rocket motors; each compatible, controllable, predictable; and each perfected for its specific mission.

HERCULES' BACKGROUND: A half-century of creative imagination in the evolution of propellants, from shotgun powder to space propulsion; encompassing research, design, engineering, and staff organization for the production of the most advanced propellants.

HERCULES POWDER COMPANY
INCORPORATED
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XP59-1

BUSINESS OUTLOOK

BUSINESS WEEK
APR. 18, 1959

We can just about stop calling this lusty one-year-old a "recovery." **It's big enough now so it has to be "the new boom."**

The Federal Reserve Board's production index, bursting into new high ground last month, pretty well confirmed the new highs previously set by most of the other broad measurements of economic health (page 36).

Of course, the early Easter helped bring back the boomtime feeling. And there's an element of unreality in the dimensions of steel's new records.

It is even true that **the boom can't become completely rounded until we get further recovery in the capital goods industries** (with an accompanying rise in manufacturing employment). But equipment buying is on the rise, and promises real impetus as we go along (page 25).

—•—

Factory employment, nearing 16-million, is 900,000 higher than it was at the recession's low. Improvement will continue, though the gains may be erratic due to strikes.

Even so, **there is no nearby prospect of getting back to 1957's high** of 16.9-million—much less the 17.5-million peak of 1953.

—•—

Continuing unemployment must be recognized as a disquieting symptom (though the degree of underemployment is certainly debatable).

Yet the fact remains that **more people have nonfarm jobs—full-time or part-time, working for themselves or for others—than ever before has been the case at this time of year.**

And the work they are doing brought about an unprecedented rise in wage-and-salary income during this year's first quarter.

Personal income from all types of activity reached a seasonally adjusted annual rate of **$368.6-billion** in March. That was a gain of little more than **$3-billion** for the month and **$8.7-billion** for the quarter.

Workers drawing wages and salaries got **$2.7-billion** of the March increase and $6.6-billion for the quarter. Their income now is **$17-billion** above a year ago, Dept. of Commerce estimates indicate.

Incidentally, **farmers,** who did much better income-wise than other groups last year, now are falling behind the parade.

—•—

Spending at retail is behaving exactly as you would expect at a time when consumer income is rising at an exceptional rate.

After allowing as best they could for the shifting date for Easter, the Washington economists figure that all retail sales in March were at a seasonally adjusted **$17.7-billion. That erases December's record.**

This widened the year-to-year gain to 10% (over a bad 1958 March).

Here's a very significant fact about consumer spending, for March and for the first quarter: **Hardgoods seem to be regaining popularity.**

Retail outlets handling **automotive products** had a **$9¼-billion** turn-

over in the first quarter ($2.2-billion or 14.6% better than the dismal showing a year earlier). For March alone, the gain was almost 20%.

Home furnishings and appliances are given only a 3% gain, but stores handling **lumber, hardware,** and similar goods did 15% better.

Food stores may have been ringing up more than their customary share of the consumers' dollars a year ago (with rising prices playing quite a role), but it's different now. Their first quarter was only 2% better than the like period last year.

—•—

Steel production this month probably will be little changed from the record monthly figure of 11,567,000 tons poured in March. But, with one less working day, **operations will have to average higher** to do it.

Output this month is running very close to 94% of capacity. The March rate, off preliminary tonnage estimates, came out at 92.3%.

—•—

Auto dealers' stocks of new cars, rising steeply ever since October, apparently will set a **new high** for the season on May 1.

Indications are that this month's production will just about match the 575,000 that rolled off the lines in March. **During March, some 70,000 more went to dealers than were sold**—putting Apr. 1 field stocks pretty close to 780,000, according to Automotive News' monthly estimate.

Even if April continues the pickup in retail sales that was developing in March, the inventory is likely to go over 800,000 cars.

Stocks of U. S.-made cars in 1958 got as high as 865,000—somewhat bigger than the prospective May 1 level.

But last year's high was recorded on Mar. 1; from that point on, the industry slashed output and devoted every effort to making sure that the decks were cleared in time for new models.

Rising stocks, this late in the season, cast doubt on how long auto output can be held at current levels. Dealers would have to sell about 1,675,000 cars this quarter just to hold floor stocks level unless output slacks off before long.

Probably the auto industry is willing to have slightly larger-than-average stocks of new cars on June 30 **in case a steel strike should spur buying** for fear of a shortage (or that a walkout in steel might actually last long enough to pinch dealers' stocks).

But holdings of 800,000 going into July would be far above "normal." The only time there ever was so large a stock July 1 was in 1955—and the way sales went that year, no inventory would have looked big.

—•—

Shifting of farm land to nonfarm uses—suburban building lots, highways, airports, and the like—is taken to be a major reason for **continually rising prices on acreage** (even at times of sagging farm income). And here's a sample of how it seems to be going:

Acreage in Iowa farms is down a million, or 3%, since 1934.

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MAKING WAY FOR THE EXPLOSION

Our population is growing so fast that experts call it an 'explosion.' The 65 million more Americans expected by 1975 will mean lower living standards for everyone unless we produce enough homes, schools, hospitals, dams, airports, water supply, electric power—and a bold imaginative road-building program to accommodate this flood of people.

Caterpillar Tractor Co. is ready for the greatest construction era in history with its 'Project Paydirt,' a vast research and development program. The famous maker of the big yellow machines is meeting the challenge ahead with more efficient and bigger-capacity earthmoving equipment—the first step in construction.

For protection, this pioneer in equipment turned to the pioneer in insurance. INA provides Caterpillar Tractor Co. with insurance that includes world-wide blanket liability, workmen's compensation, automobile liability, fire and, for its subsidiary in Australia, ocean marine.

Your business, large or small, can get the same *extra value* in complete protection and personalized service that makes Insurance by North America better. Ask any INA agent or your broker.

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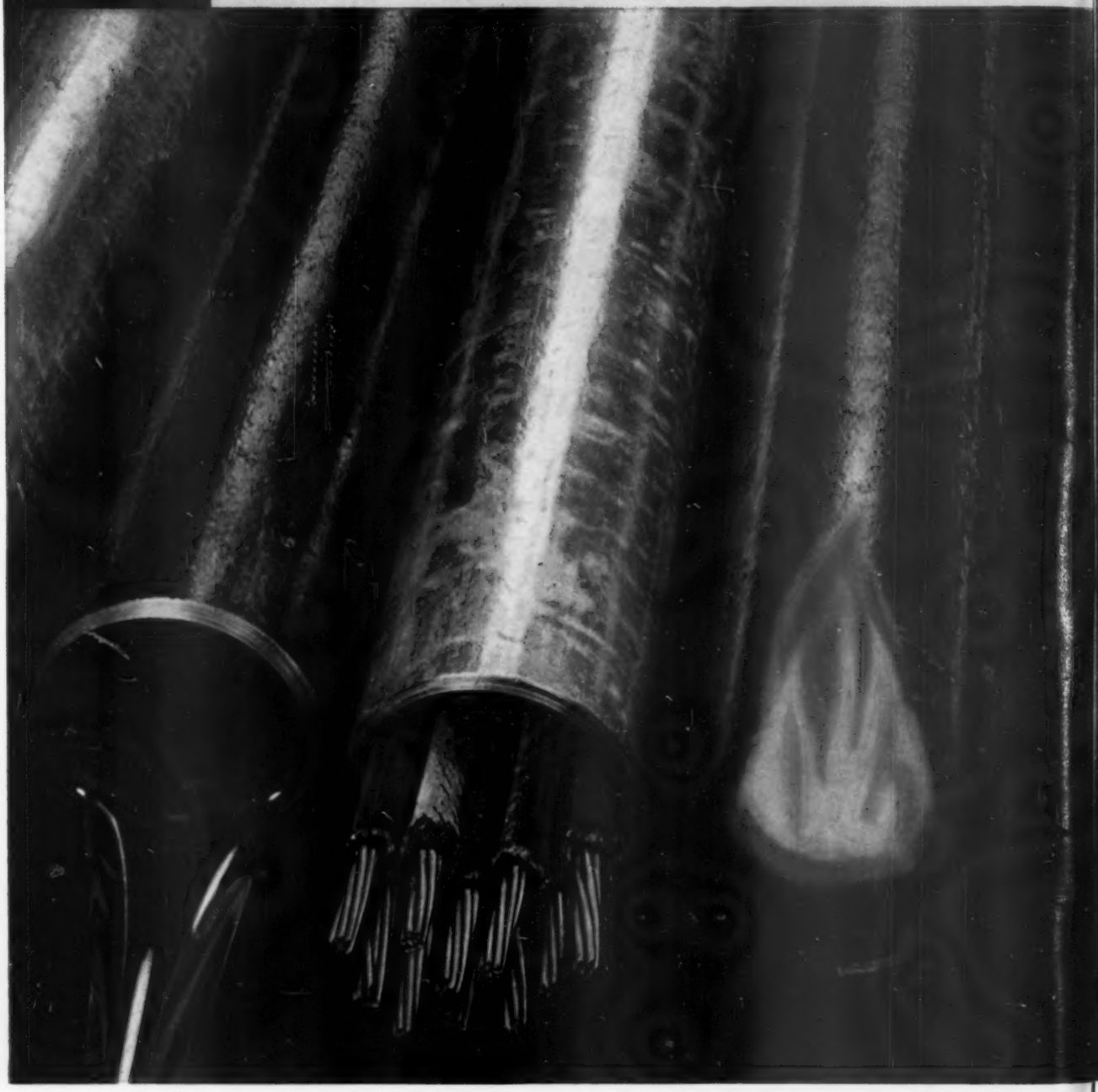
WHEELING STEEL

Imagination in steel...by **Wheeling**



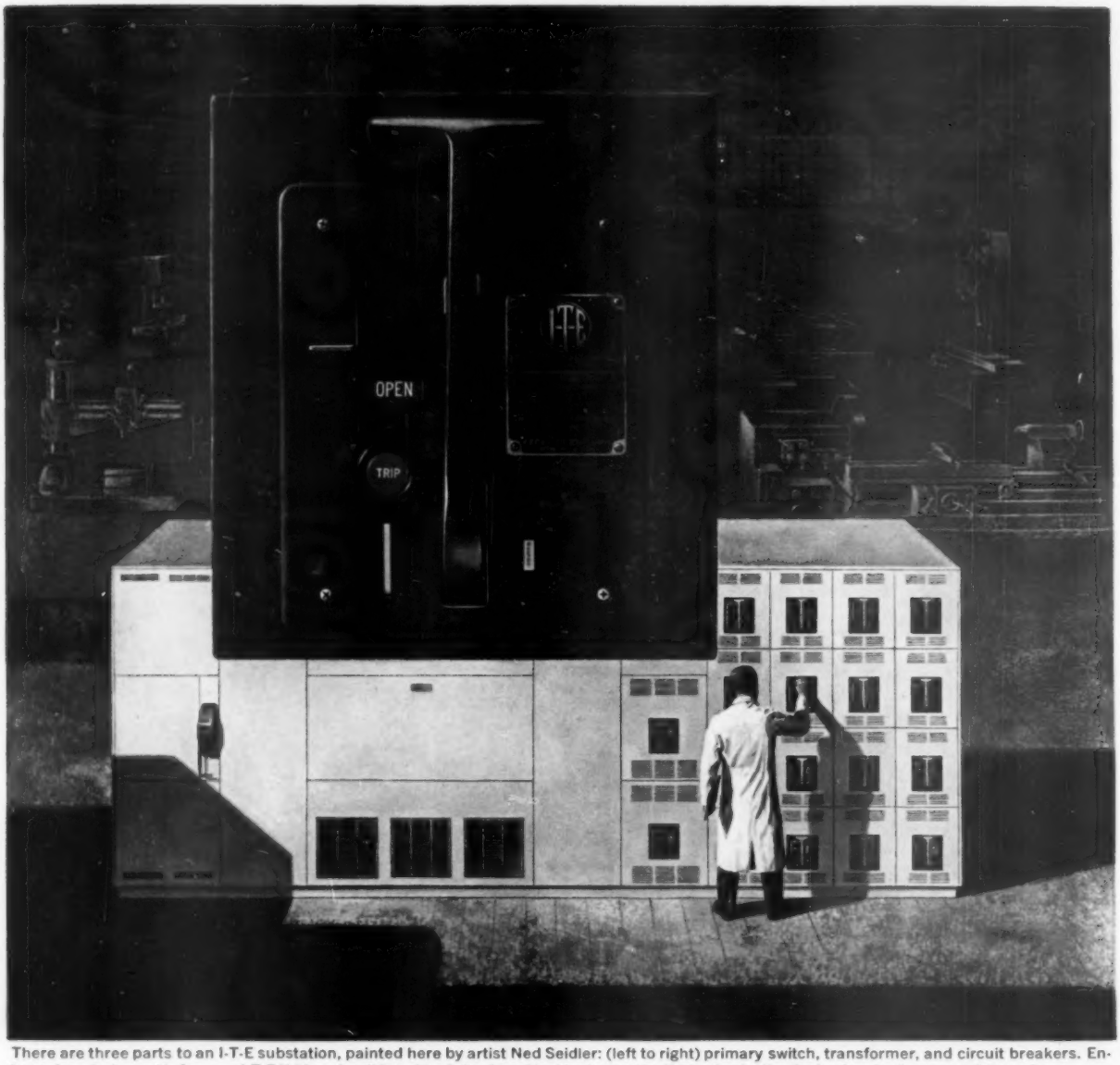
So much that makes life easier moves through steel pipe!

Water flows . . . offices light . . . buildings heat . . . and industry draws on a seemingly endless supply of essential raw materials—thanks to pipes of steel.

Why's *steel* pipe so widely used? First, it's the only pipe that combines economy and dependability with superior mechanical strength.

Second, most craftsmen prefer to use it. And, finally, only steel pipe has a long history of stability in both price and quality.

For decades now, Wheeling Steel Pipe has been the first choice of many of America's largest pipe users. That's because Wheeling is the world's most experienced producer of welded steel pipe. In addition, it's always developing new ways to make still-better black and galvanized pipe. For example, Wheeling has just completed a $5½-million program to expand its pipe making, warehousing and shipping facilities. Wheeling Steel Corporation, Wheeling, West Virginia. **IT'S WHEELING STEEL!**



There are three parts to an I-T-E substation, painted here by artist Ned Seidler: (left to right) primary switch, transformer, and circuit breakers. Enlarged control panel is from an I-T-E K-Line circuit breaker. Introduced just last year, the K-Line broke the design barrier for new safety and economy.

STEP UP TO LOWER-COST ELECTRICITY

As a substitute for backbreaking labor, electric power can't be matched in today's industry. Nor can its unbelievable low cost. But many manufacturing companies still don't realize that they could buy their power at lower prices. The way is simple. Electricity is cheaper at higher voltages. Then to make it usable, I-T-E offers these completely integrated local substations. Power passes through a main switch to a transformer where it is reduced in voltage. Then it is divided into main circuits protected by circuit breakers. This arrangement saves the users money two ways: lighter, less-costly powerlines and lower rates from the utility company. In the growing trend toward higher voltage power, I-T-E substations have earned a reputation for consistently superior quality and performance. Yet the amazing fact is they cost no more. Would this combination interest you?

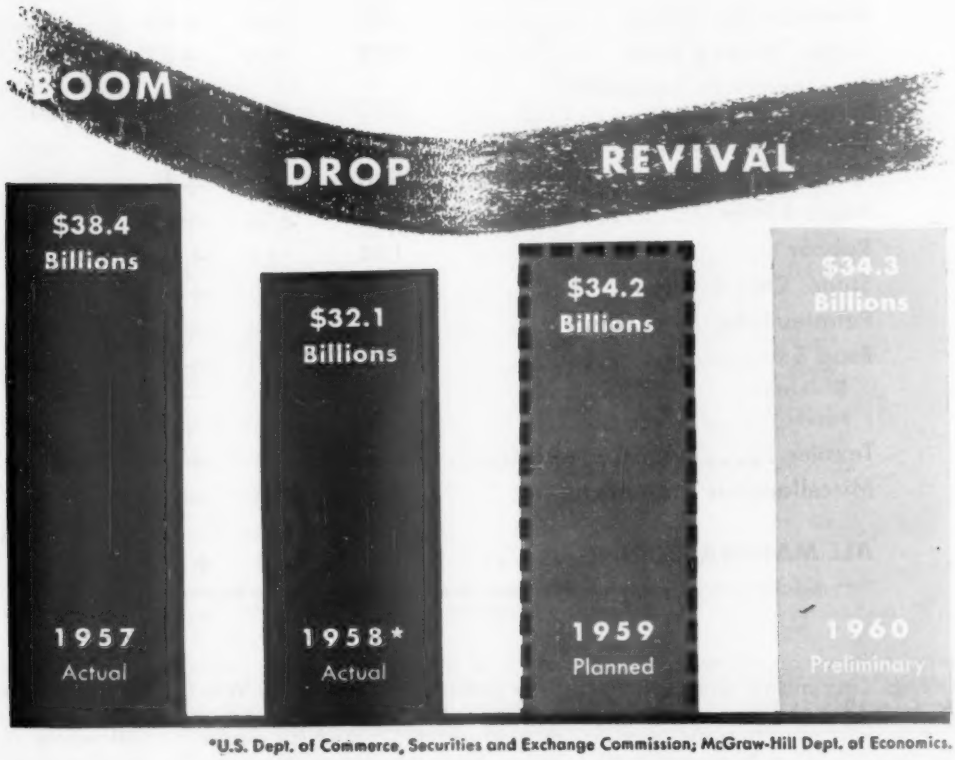
Divisions: • Switchgear • Small Air Circuit Breaker • Transformer & Rectifier • Special Products • Greensburg • BullDog Electric Products • Victor Insulators • Kelman Power Circuit Breaker Subsidiaries: The Chase-Shawmut Co. • Walker Electrical Co. • Wilson Electrical Equipment Co. In Canada: BullDog Electric Products Co. Ltd. • Eastern Power Devices Ltd. Canadian Porcelain Co. Ltd.

I-T-E CIRCUIT BREAKER COMPANY

BUSINESS WEEK

APRIL 18, 1959
NUMBER 1546

THE McGRAW-HILL CAPITAL SPENDING SURVEY



*U.S. Dept. of Commerce, Securities and Exchange Commission; McGraw-Hill Dept. of Economics.

Capital Spending Heads Upward

New McGraw-Hill survey shows spending for plant and equipment definitely on upswing—not just a temporary spurt but the start of a long climb, with 1960 plans already topping this year's. Sales and productivity are also due for a fast boost.

The 1959 McGraw-Hill capital spending survey makes one clear and unmistakable point: Business spending on new plant and equipment is again on the upswing.

That in itself is good news for the economy. But it's not the whole story. By getting at some of the fundamental changes affecting the U. S. economy, the new survey shows that the rise in capital spending is no temporary or accidental bump.

On the contrary, the nation looks to be set for long-term growth again. And that growth will be powered, not just by booming—and inflationary—demand, but by industry's drive to modernize, step up productivity, discover and introduce new processes and new products that will make the coming expansion phase steadier and longer-lived than was the last.

Here are the key points that show up in the 1959 McGraw-Hill survey of industry's capital spending intentions at the end of the first quarter.

How spending will rise:

• Business now plans to spend $34.2-billion on new plant and equipment in 1959—topping by 7% the $32.1-billion it spent in 1958.

• Preliminary plans for 1960 already call for slightly higher capital outlays than in 1959. This is unprecedented. It is the first time since the McGraw-Hill survey began that businessmen have planned, so far ahead, to increase outlays for a succeeding year above the level planned for the current year.

• Even preliminary plans for 1961-62 are already only 4% below plans for 1959-60.

• A rising flow of funds from de-

Here's How Capital Spending

Manufacturing
(Millions of Dollars)

INDUSTRY	1958 ACTUAL*	1959 PLANNED	1958-1959 % CHANGE	PRELIMINARY PLANS 1960	1961	1962
Iron & Steel	$1,217	$1,180	−3%	$1,274	$1,032	$1,032
Nonferrous Metals	510	428	−16	368	383	394
Machinery	915	986	+8	1,036	1,044	1,068
Electrical Machinery	459	532	+16	591	532	532
Autos, Trucks & Parts	558	709	+27	730	679	740
Transportation Equipment (Aircraft, Ships, R.R. eq'pt.)	370	440	+19	343	326	326
Other Metalworking	723	875	+21	941	908	838
Chemicals	1,320	1,386	+5	1,441	1,542	1,635
Paper & Pulp	578	636	+10	617	611	587
Rubber	134	165	+23	188	203	223
Stone, Clay & Glass	399	498	+25	469	478	486
Petroleum Refining	665	698	+5	670	750	765
Food & Beverages	742	783	+6	719	702	692
Beverages	176	170	−3	145	124	133
Food	566	613	+8	574	578	559
Textiles	288	321	+11	324	326	342
Miscellaneous Manufacturing	883	835	−5	737	749	784
ALL MANUFACTURING	9,761	10,472	+7	10,448	10,265	10,444

*Data: U. S. Department of Commerce, Securities and Exchange Commission, McGraw-Hill Department of Economics

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preciation allowances will be supporting spending. They are now slated to climb 21% from 1958 to 1962.

• Industry plans to spend more in 1959 than ever before to modernize obsolete plants and equipment. That heavy emphasis on modernization will continue in the three following years. Over the whole period of 1959 to 1962, two-thirds of the capital spending planned by manufacturing companies will go for modernization.

How the economy will be affected:

• Industrial capacity will still be growing—but at a much slower rate than in earlier postwar years. Between 1954 and 1957, manufacturing companies boosted their capacity by 20%. In the three-year period, 1959-1962, they are planning to raise capacity only 11%.

• In that same three-year period manufacturers expect sales to go up 18%—but employment only 8%. This year manufacturers are looking for a 9% gain in sales over 1958 but only a 3% increase in employment.

• Manufacturers think productivity is set for a fast rate of climb—6% this year, then an average gain of 3% per year in 1960, 1961 and 1962. That rate is in line with the U.S. productivity performance since World War II—up to the time productivity hit a snag in 1956 and 1957. And it's markedly higher than the prewar productivity gain, which was at an average rate of about 2% per year.

• Business is still stepping up its research and development activity. In 1958, despite the recession, companies stuck to their plans to go on boosting their R&D outlays—and these rose to $8.2-billion for the year. This set a new record, bettering the 1957 total by 12%. By 1962, companies expect their R&D expenditures to reach $10.6-billion—and to unloose a continuing flow of new products and new processes.

I. On the Way Up

The 1959 McGraw-Hill capital spending survey is based on information received during March from companies representing all U.S. industries. The companies reporting in the survey employ more than 50% of all workers in the group of industries where capital spending is highest. In industries where coverage is not so complete, companies are carefully selected to provide a cross-section of their industry.

• **Turnaround**—This year's McGraw-Hill survey shows the way a capital spending wave can gradually take form and gather force, once there has been a genuine turn in the business cycle. First, businessmen are cautious about spending, then gradually revise upward both their advance plans and their actual capital spending. That pattern, which is evident now, provides a striking parallel with events during and after the 1953-54 recession.

In the spring of 1954, business expected to spend 15% less in 1955 than in 1954. By the fall of 1954, the expected drop had narrowed to only 5%. The spring survey of 1955—when recovery was in full stride—showed a switch in direction—a 5% gain over 1954. And the actual spending total for 1955 beat 1954 by 7%. Then, in 1956, capital spending jumped 22%.

Something similar is happening now.

A year ago, plans for 1959 spending indicated an 8% drop below 1958. By last fall, business had switched to a planned but tiny increase of 0.5%. Then last month the Securities & Ex-

Plans Break Down by Industries

Nonmanufacturing
(Millions of Dollars)

INDUSTRY	1958 ACTUAL*	1959 PLANNED	1958-1959 % CHANGE	PRELIMINARY PLANS 1960	1961	1962
Petroleum Industry . . .	**$4,819**	**$5,338**	**+11%**	**$5,363**	**$5,441**	**$5,609**
Production (1)	3,341	3,742	+12	3,779	3,817	3,970
Transportation (2)	317	333	+5	390	332	325
Refining	665	698	+5	670	750	765
Marketing	404	469	+16	441	454	472
Other	92	96	+4	83	88	77
Mining	**394**	**409**	**+4**	**342**	**286**	**271**
Coal	155	121	−22	120	110	99
Iron Ore (3)	47	66	+40	73	55	62
Nonferrous	123	160	+30	96	68	68
Nonmetallic (4)	69	62	−10	53	53	42
Railroads	**754**	**777**	**+3**	**816**	**800**	**864**
Other Transportation & Communications . . .	**3,899**	**4,195**	**+8**	**4,381**	**4,346**	**4,363**
Electric & Gas Utilities . .	**6,088**	**6,182**	**+2**	**5,974**	**5,723**	**5,952**
Commercial (5)	**7,041**	**7,534**	**+7**	**7,609**	**6,772**	**6,095**
NONMANUFACTURING (6)	**22,330**	**23,737**	**+6**	**23,815**	**22,618**	**22,389**

Data: U. S. Department of Commerce, Securities and Exchange Commission, McGraw-Hill Department of Economics

(1) Does not include bonus payments for leases
(2) Includes oil pipelines; does not include gas pipelines, included under gas utilities
(3) Excludes taconite
(4) Excludes mining by manufacturing companies
(5) Figure based on large chain, mail order and department stores, insurance companies, banks and other large commercial businesses
(6) Nonmanufacturing total excludes petroleum refining, which is included in the manufacturing total

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change Commission-Commerce Dept. survey pointed to a 4% rise in capital spending this year (BW—Mar.21'59, p25). Now the McGraw-Hill survey widens the planned rise to 7%. It's more than possible that, as the year wears on, rising sales and profits could send actual 1959 capital spending totals still higher.

• **No Wild Investment Boom**—But is there also a parallel between 1960's capital spending prospects and the 1956 investment boom? As it looks now, there's not much reason to expect the parallel to hold for those years. For one thing, a reservoir of capacity was built up in the huge expansion program that preceded the recession of 1957-58; and this capacity still hangs over the economy to some extent.

For another, though consumer spending has been gaining at a good clip, it has not yet shown anything resembling the furious performance of 1955. It was that consumer splurge that swiftly brought industrial production up against capacity limits.

At the end of 1958, manufacturing companies were operating, the McGraw-Hill Dept. of Economics finds, at 80% of capacity. Even with production on the rise since then, most industries think they still have capacity to spare for some time. And they do not yet see signs of the kind of steeply rising sales trend that would require them to expand rapidly in the years immediately ahead.

• **Laggards and Leaders**—Although the general turn in capital spending has come, a few industries are still lagging behind, as the table above shows. Nonferrous metal companies, the worst laggards in manufacturing, expect to spend 16% less in 1959 than in 1958, and preliminary plans for 1960-62 don't even come up to this year's reduced level. The steel industry will spend 3% less this year than last. But its contribution to the spending total will still be a hefty one through the period ahead—over $1-billion a year for each of the next four years.

Other groups will come close to or top steel's figure. Machinery companies are planning to raise their spending ante to at least $1-billion a year, starting in 1960. Biggest capital spender of all among the manufacturing industries will be chemicals; the group's present plans show a steady climb from $1.3-billion in 1958 to $1.6-billion in 1962.

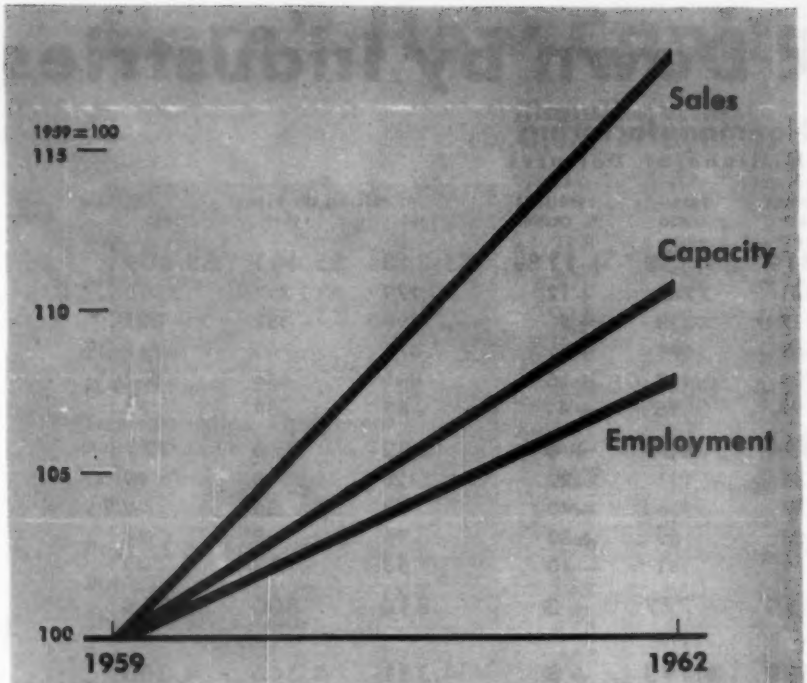
In the nonmanufacturing field, the petroleum industry will check in this year with a sizable 11% gain. And through the four years ahead, its capital outlays are slated to climb from $5.3-billion in 1959 to $5.6-billion in 1962.

Electric and gas utilities will outdo even this huge sum with a planned expenditure of $6.2-billion in 1959—only a few million dollars short of their 1957 peak. They will stay close to $6-billion a year from 1960 through 1962.

Commercial companies—department stores, mail order houses, insurance companies, banks, and so on—are giving their capital outlays a strong boost this year. From $7-billion in 1958, their expenditures this year will mount to $7.5-billion; and next year they already figure to go still higher.

II. Sales and Jobs

It's clear that manufacturing industries, caught in the overcapacity scare of 1957-58, still expect to play their capital expansion hands with a considerable touch of caution. Every manu-



Manufacturers See These Gains by 1962 . . . IN

. . . CAPACITY

. . . SALES

. . . EMPLOYMENT

	EXPECTED % INCREASE IN CAPACITY	INCREASE IN SALES	EMPLOYMENT
All Manufacturing	11	18	8
Iron & Steel	3	27	5
Nonferrous Metals	15	26	18
Machinery	11	29	19
Electrical Machinery	16	30	20
Autos, Trucks & Parts	5	19	16
Transportation Equipment	2	8	—3
Other Metalworking	14	17	5
Chemicals	19	24	7
Paper & Pulp	19	18	4
Rubber	12	22	9
Stone, Clay & Glass	13	17	8
Petroleum Refining	1	11	4
Food & Beverages	10	13	4
Textiles	9	15	1
Miscellaneous Mfg.	10	15	6

Data: McGraw Hill Dept. of Economics.

facturing industry except "other metal working" and the paper and pulp group looks for bigger gains in sales than in capacity over the period 1959-1962 (chart, left). For manufacturing as a whole, the expected percentage rise in sales during this period is not far from double the planned increase in capacity.

• **Too Cautious?**—Yet it's possible that companies are playing it too cautiously—are underestimating the chances that a further growth in sales may quickly wipe out their spare capacity margins. The survey showed that in half of the individual manufacturing industries the average operating rate at the end of 1958 was not very different from the rates reported for the end of 1954, when recovery was just beginning.

Among the industries with an operating rate similar to late 1954's were several that are typically the biggest capital spenders and the greatest innovators in products and processes—chemicals, machinery, other metalworking, food and beverages, petroleum refining, transportation equipment.

If the sales forecasts of these industries prove too low and a splurge of sales again beats against the capacity roof, capital spending could take off with a whoosh well before 1962.

But the McGraw-Hill survey doesn't try to second-guess industry; it reports what industry spokesmen are now saying and planning. And right now, business executives are still planning for the years just ahead on a climb in capacity that's on the moderate side. The largest capacity increases planned for 1959-62 are in the chemicals and the paper and pulp industries (both 19%), electrical machinery (16%), and nonferrous metals (15%). At the low end are petroleum refining companies, which plan only a 1% increase in 1959 and another 1% by the end of 1962.

• **Job Puzzle**—The manufacturing companies surveyed don't expect employment to rise nearly so much as sales. The average increase in jobs expected this year is only 3% over 1958—one-third of the percentage gain looked for in sales. And the increase in jobs expected between 1959 and 1962 is only 8%—against 18% expected for sales.

This result of the survey is likely to stir up some controversy over just what it means. Labor unions in manufacturing, concerned about still high rates of unemployment and a fast-growing labor force, are likely to view the McGraw-Hill finding as evidence of a chronic tendency of the economy toward unemployment—one that may persist for a few years after Secy. of Labor Mitchell either has or has not eaten his hat on the steps of the Labor Dept. in October (as he promised to do unless unemployment gets down by then to 3-million).

But employers—and others who see

rising productivity as the main stimulus of national economic growth—will see something different. They will greet the McGraw-Hill finding as evidence that the U. S. economy has broken through to a new growth rate, and as a result of it, a faster gain in individual welfare and national economic power.

There are some missing elements in the puzzle: How fast will the labor force really grow? Will there be a swing toward shorter hours? How fast will employment grow in nonmanufacturing industries—in other words, will a growth in jobs outside manufacturing absorb surplus labor within manufacturing?

And if these fast productivity gains are really forthcoming, what will be their effect on company earnings—and workers' incomes? Will it push these up so much that the boost in consumer and investment demand will go beyond present expectations, pull production up faster than now expected, shrink unemployment to prerecession levels?

III. More for Modernizing

But whether the fast-climbing productivity produces pain, jobs, or—in different quarters—both, there is no doubt that what U. S. industry wants to buy is modernization.

Manufacturing companies this year are going to spend more money to modernize their production facilities than in any previous year—even 1957, the record year for total capital spending. In 1959 and then in 1960-62 manufacturing companies expect to devote 65% of their capital outlays to modernization. That's the highest proportion reported for this purpose in a McGraw-Hill survey since 1950.

A special survey last summer by the McGraw-Hill Dept. of Economics came up with a figure of $35-billion as the amount it would cost to replace all the facilities that manufacturing companies then considered obsolete. According to the new survey, manufacturers plan to mop up about $27-billion of that replacement job in the next four years.

• **Scientific Spur**—But whether a greater drive for expansion lends extra power to the currently rising capital spending curve or not, the current investment surge has one special characteristic—the heavy impetus that scientific and technological progress is putting behind it. This shows up in the modernization

REPORTS AVAILABLE

Readers wishing to obtain the complete 12th Annual Capital Spending Survey, 1959-62, can do so by writing to the McGraw-Hill Dept. of Economics, 330 West 42 Street, New York 36, N. Y.

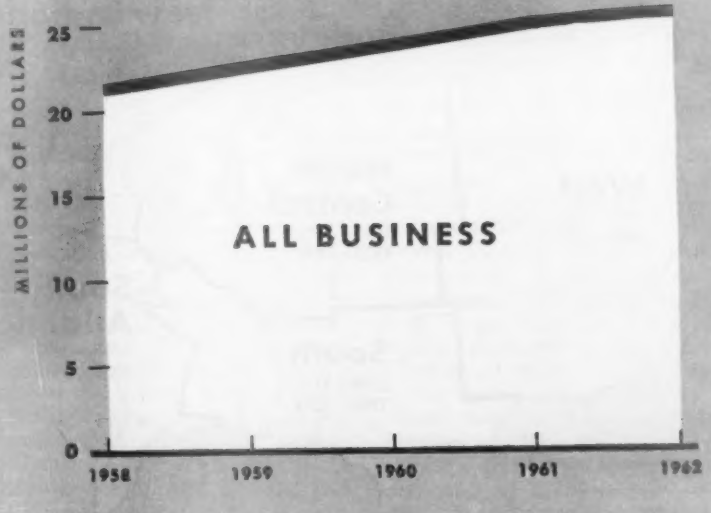
Research and Development Spending Rises Steadily . . .

(Millions of Dollars)

INDUSTRY	1958	PLANNED 1959	PLANNED 1962
Primary Metals	$ 117.0	$ 133.4	$ 154.7
Machinery	605.4	653.8	778.0
Electrical Equipment	1,435.6	1,636.6	2,176.7
Aircraft and Parts	3,037.7	3,341.5	3,675.7
Fabricated Metals & Ordnance	199.1	215.0	253.7
Professional & Scientific Instr.	324.5	353.7	435.1
Chemical & Allied Products	607.2	637.6	752.4
Paper & Allied Products	52.8	57.0	71.3
Rubber Products	85.9	94.5	111.5
Stone, Clay & Glass	70.8	78.6	91.2
Petroleum Products	259.2	295.5	328.0
Food & Kindred Products	94.4	100.1	119.1
Textile Mill Prod. & Apparel	33.3	33.3	37.0
Other Manufacturing (1)	894.6	1,019.8	1,193.2
ALL MANUFACTURING	7,817.5	8,650.4	10,177.6
Nonmanufacturing Industries	363.3	399.6	431.6
ALL INDUSTRIES	8,180.8	9,050.0	10,609.2

(1) Includes autos, tobacco, lumber and wood products, furniture, printing and publishing, transportation equipment other than aircraft and autos, and miscellaneous manufacturing industries.

. . . And So Do Depreciation Allowances



Data: McGraw Hill Dept. of Economics.

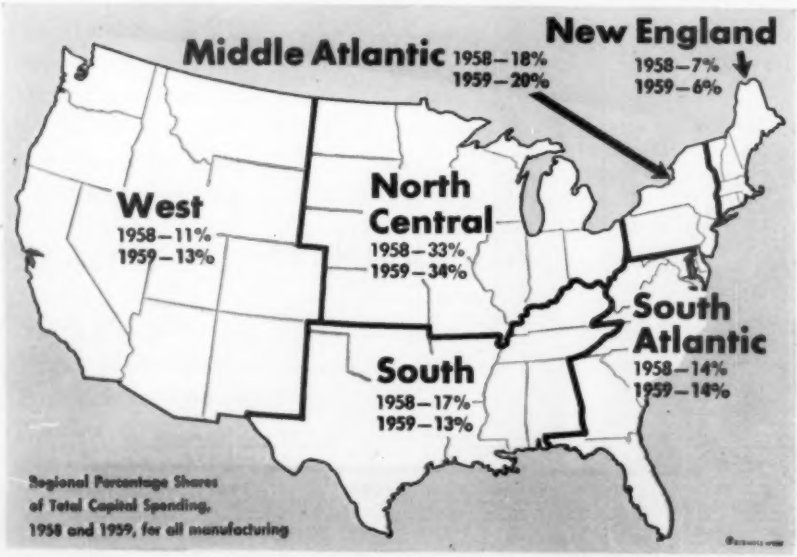
drive—and just as dramatically in the rising tide of research and development spending. Every industry is on a rising R&D trend.

Biggest R&D spenders, of course, are those most heavily involved in defense business. In the next four years, the aircraft industry and electrical equipment together will account for 52% of the total R&D work. But the wave is reaching all industries, and it's still far from its crest.

More Emphasis on Modernization . . .

Percent of Capital Spending Planned for:	1958		1959		1960-1962	
INDUSTRY	EXPANSION	REPLACEMENT & MODERNIZATION	EXPANSION	REPLACEMENT & MODERNIZATION	EXPANSION	REPLACEMENT & MODERNIZATION
Iron & Steel	55%	45%	24%	76%	16%	84%
Nonferrous Metals	77	23	63	37	52	48
Machinery	25	75	32	68	25	75
Electrical Machinery	49	51	42	58	41	59
Autos & Trucks	14	86	10	90	16	84
Transportation Eq'pt. (Aircraft, Ships, R.R. Eq'pt.)	27	73	34	66	30	70
Other Metalworking	30	70	37	63	35	65
Chemicals	72	28	61	39	62	38
Paper & Pulp	41	59	41	59	38	62
Rubber	37	63	14	86	38	62
Stone, Clay & Glass	60	40	48	52	49	51
Petroleum Refining	16	84	14	86	12	88
Food & Beverages	37	63	23	77	28	72
Textiles	18	82	33	67	29	71
Miscellaneous Mfg.	54	46	35	65	43	57
ALL MANUFACTURING	44	56	35	65	35	65

. . . Means More Spending in Older Industrial Regions



Regional Percentage Shares of Total Capital Spending, 1958 and 1959, for all manufacturing

Space

DEBATE over management of the U. S. space program continued to spout this week, but two important events distracted public attention for the moment from words to deeds:

• On the military side of space research, the Air Force successfully launched Discoverer II into a polar orbit. This satellite, rigged to be controlled from earth, toted equipment for an experiment in recovering some of the gear shot into space with it.

• On the civilian side, the National Aeronautics & Space Administration unveiled the most detailed outline yet of its plans for probing the heavens. The schedule made clear NASA's goals for the next two years. Included in the announcement was a prototype design for a paddle-wheeled satellite to be fired at Venus, perhaps early in June (picture, right).

• **More Muscle**—Discoverer II's firing was the second in a series that the Pentagon's Advanced Research Projects Agency expects to continue through 1959 on a monthly timetable. Launched from California's Vandenberg Air Force Base last Monday, it was the most sophisticated package the U. S. has yet sent into space.

The most significant aspect of this Discoverer was that the liquid fuel burned in its second-stage engine gave it the muscle to carry 300 lb. more than it would have been able to on another diet. This is just about the margin that would make it possible to haul a monkey or a television scanning camera up into orbit.

The fuel, unsymmetrical dimethyl hydrazine, had been burned before in the Vanguard second-stage engine but never before in the power plant made by Bell Aircraft for the second stage of the Discoverer. This second stage, weighing 1,600 lb., went into orbit as a unit, toting a maze of electronic devices including a brand-new type of inertial guidance system, a computer, and an infrared horizon scanner.

• **Hitch in Timing**—For the first stage, the Air Force and ARPA selected a Thor intermediate-range ballistic missile, which apparently worked perfectly. It sent Discoverer into an orbit passing over both poles and varying from 152 mi. to 220 mi. above the earth—precisely the type of orbit best suited to enable scanning equipment to survey the entire surface of the globe.

During its first 17 circuits of the earth, Discoverer's instruments reported back more than 100 different kinds of scientific data. Some of it dealt with the behavior of the engines and guidance system. Some described the environment through which the satellite was

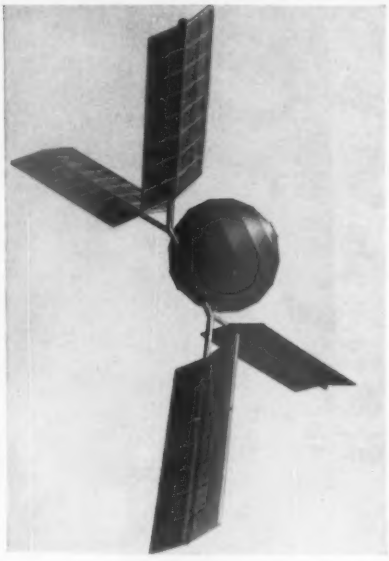
Team Sets Itself a Busy Schedule

● National Aeronautics & Space Administration reveals elaborate plans.

● Two-year timetable includes satellites, deep space probes, small sounding rockets.

● Meantime, Air Force successfully fires a Discoverer satellite, the most sophisticated yet, into polar orbit.

● Among them will be a Venus-bound satellite with "paddle wheels" to convert solar energy into power to run radios and instruments (picture, right).



traveling. Still other data had to do with releasing the capsule Discoverer carried for the experiment in recovery. The capsule was ejected according to plan, but because of an error in timing, aircraft and supporting naval vessels did not attempt to catch it as intended.

• **NASA's Aspirations**—Over the next two years, NASA plans an impressive schedule of scientific satellites, space probes, and small sounding rockets of its own. In 1959 alone, for example, the program includes eight tries at orbitting satellites and two at penetrating deep into space; next year there will be at least six satellite attempts and four launchings into distant space. Through these efforts, NASA hopes to assemble vital information on all sorts of space subjects.

For instance, two more Vanguard satellites will be shot in order to survey characteristics of the earth's atmosphere. Last Monday's unsuccessful Vanguard launching, intended to put two satellites into orbit at once, would have reported on the earth's magnetic field and on the resistance encountered by moving objects even in the virtual vacuum of high altitudes. Some 200 sounding rockets will also explore the earth's surroundings.

The atmosphere of the planets Venus and Mars will be examined by other probes. Though Venus and Mars are farther away than the moon, it may be easier to fire a probe into their atmosphere because they present a much larger target. On the other hand, Venus' cloud cover will make precise navigation most difficult.

• **Other Topics**—Five more earth satellite shots, one deep space probe, and seven sounding rockets will blast off with the assignment of charting the ionosphere—the electrically-charged band of atmosphere that surrounds the earth. The intensity of the charge varies, and the object of the studies will be to find out just how.

Over the next 18 months, another program will delve into the antics of the energy-carrying particles found in space—such as cosmic rays, particles producing auroral displays, and particles in the Van Allen radiation belts. Four satellites, three space shots, and 12 sounding rockets will be launched for the purpose.

The magnetic fields in space will be investigated in a series of shots: two satellites to inspect the currents of magnetic storms, a polar satellite to map the earth's magnetic field, a probe to explore the magnetic fields of both the earth and the moon, some 30 sounding rockets to study magnetic currents in the ionosphere, and two satellites to look into Venus' magnetic field and the way earth's fields are distorted.

• **Telescope Aloft**—NASA intends to assist astronomers by launching sounding rockets in the near future to look into ultraviolet rays, gamma rays, and X-rays in space. The agency also hopes eventually to capture meteors and meteorites for analysis. This would be done by sending a series of satellites into areas meteorites were showering, on the chance that one of them would imbed itself in the skin of one of the baby moons, which might then be recovered. Within a year or two, NASA wants to put a telescope into orbit on a satellite.

Another program calls for satellites to measure the heat transmitted to the earth from the sun and reflected back into space.

Looking five to six years ahead, NASA foresees a satellite launched in such a way as always to be above the same spot on earth so that it could be used as a communications relay station. Within 10 years, NASA expects a network of meteorological satellites to provide precise forecasts of the weather.

• **Varied Vehicles**—For this elaborate list of space shots, NASA will use a variety of hardware. For example, in firing toward Venus and Mars and eventually trying to orbit and land on them, the scientists will mobilize these and other different vehicles:

• Thor-Able, consisting of a Thor IRBM and Vanguard second and third stages, for a 50-lb. payload.

• Atlas-Able, similar to Thor-Able except that the first stage is an Atlas intercontinental ballistic missile, for a 200-lb. payload.

• Vega, composed of an Atlas ICBM for the first stage and a Vanguard first stage for the second, for payloads ranging from 260 to 1,300 lb., depending on the assignment. Later versions of Vega will be souped up by addition of a third stage with a 6,000-lb.-thrust engine being developed by Jet Propulsion Laboratories.

• Juno V, made up of the Jupiter IRBM and a series of Sergeant solid-propellant rocket engines, for loads of 900 to 15,000 lb.

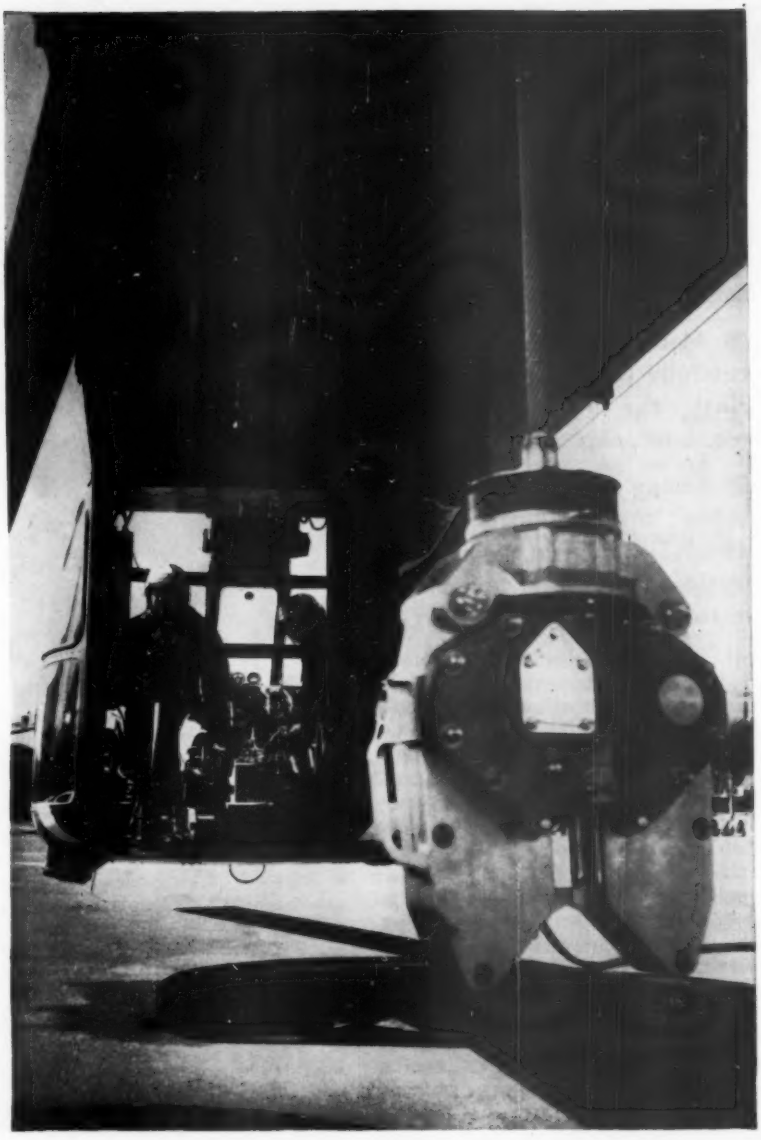
• Nova, consisting of up to five stages, according to the mission. First would come a cluster of four single-chamber engines with 1.5-million lb. of thrust each, now under development at Rocketdyne. The second stage would be one of these same engines; the third and fourth would be a new engine fueled with liquid oxygen and hydrogen, and the fifth would be a storable liquid-fuel engine, in which the fuel is prepackaged in much the same way as an ink cartridge in a ballpoint pen.

Eventually, the Juno V might take part in a deep probe aimed toward the sun or shot to pass close to Jupiter.

• **Moonbound**—Some of the same vehicles will go into service in shots at the moon. In addition, the moon rockets will include the still-secret Thor-Delta and the Centaur, which will combine a modified Atlas, a 15,000-lb.-thrust liquid oxygen and hydrogen engine under development by Pratt & Whitney and Convair, and a storable liquid-fuel engine producing at least 6,000 lb. of thrust.

The moon program calls for both "hard" and "soft" landings. In the former, the vehicle will hit the moon's surface at full speed and presumably be destroyed; in the latter, retro-rockets will be used to slow it sufficiently to land instruments intact.

UTILITY POLE is typical load for new Sikorsky S-60 Flying Crane. It can lift still heavier objects, up to 6 tons.



BUSINESS END of helicopter's hoist is this grab at end of a cable operated by electro-hydraulic mechanism controlled by the pilot.

Flying Crane Struts Its Stuff

New Sikorsky helicopter is built specifically for carrying heavy loads to inaccessible places for industry and for the military.

The armed services and utility companies increasingly use helicopters to move loads that are otherwise awkward to handle in some situations. This week (pictures), Sikorsky Aircraft Div. of United Aircraft Corp. in Stratford, Conn., demonstrated a giant helicopter built especially for this kind of hauling. It's officially the S-60, unofficially "the Flying Crane."

The S-60 can lift heavier loads than the ordinary helicopter—up to 6 tons. (Craft capable of lifting 50 tons are on the drawingboards, according to Sikorsky.) It can tote a capacity load as far as 100 mi. in slightly under an hour. It can pull like an aerial locomotive—one suggested use is to tow distressed yachts and small ships into port.

• **Crane Operator**—Perhaps the S-60's biggest selling point is its cockpit arrangement, designed from the viewpoint of a crane operator.

One difficulty with present helicopters as load lifters is the pilot's inability to see what's happening behind and below him as the cargo is taken up. The S-60's cockpit is designed to give the pilot an unobstructed view and provides him with a swivel seat and controls he can operate while facing either to the front or back of the helicopter.

• **Still Costly**—The Flying Crane's greatest drawback at the moment is its price tag, about $750,000 with hoisting mechanism and two 2,100-hp. piston engines. The more powerful versions, with gas turbines, will cost even more.

However, Sikorsky officials are sure that the overriding consideration for many industrial users, as well as for the armed forces, will be the Flying Crane's ability to deliver cargo in hours to inaccessible areas where it might take months to blaze even the roughest trail. This capability can't otherwise be bought at any price, Sikorsky men point out.

Besides, they say, as more S-60s are sold, the unit price will drop.

What Dulles' Successor Inherits

● **The new Secretary of State takes office in one of the most crucial periods in East-West relations.**

● **His first big problem is Russia's threat to turn over East Germany to Communist puppets.**

● **The Soviets are probing at Western unity.**

● **And discord—particularly between West Germany and Britain—is hanging over the Allied camp.**

John Foster Dulles, the man who has been the author and symbol of United States foreign policy for over half a decade, resigned as Secretary of State this week.

His decision, put off from week to week for more than two months while he fought doggedly against cancer of the abdomen, came within hours after a panel of distinguished physicians revealed at Walter Reed Hospital in Washington that the cancer had spread to Dulles' neck.

• **Change in Command**—At midweek, the President still had not appointed a successor. This came as a surprise, even a shock, to Administration officials. They had been certain for several weeks that the choice would be Acting Secretary of State Christian A. Herter, former governor of Massachusetts. Officials at the State Dept. even had believed that Herter's appointment would be announced simultaneously with Dulles' resignation. There was some criticism in Washington that the apparent hesitation over the appointment of a successor would weaken the prestige of the man Eisenhower eventually named—particularly if it were Herter.

I. The Inheritance

The change in command at the State Dept. comes at a time of change and crisis in international affairs. This added extra poignancy and drama to the resignation of the tough old man who almost single handedly has piloted the U.S. and the free world through crisis after crisis.

The challenge now facing Dulles' successor hardly could be more difficult and dangerous.

Tough, cocky, shrewd Nikita Khrushchev is relentlessly probing Western unity and courage at its most exposed nerve center—West Berlin, the Western garrisoned island of freedom more than 100 miles behind the Iron Curtain. He is threatening to turn over to his East German puppets control over Western access to the city. Carried to its extreme, this could face the West with the alternative of granting the East Germans some measure of recognition—which would tend to perpetuate the division of Germany and Soviet control over Eastern Europe—or of keeping land, water, and air routes to Berlin open by force, which would risk nuclear war.

Probably Khrushchev is merely probing for Western weakness, will agree to some acceptable compromise if the Western Allies stand firmly on their rights. But no one can be sure how close to the edge of war he will push the world. And the Western unity, essential to discourage Khrushchev, has yet to be forged.

• **Allied Disunity**—The Western Alliance is still divided. The British and the West Germans have been bickering bitterly. Ostensibly, the friction is over Allied policy toward the Berlin crisis, but it reflects deeper fears in both countries: British fear of revived German economic might which is challenging vital British export trade; German fear that Whitehall is reverting to its traditional policy of playing upon political divisions in Europe.

The British had expected that the Germans would support their efforts to associate themselves with the Common Market without joining it. Instead, the Germans sided with the French to exclude Britain from the Common Market on any but all or nothing terms. Bonn, and particularly Chancellor Konrad Adenauer, is fearful that the British are seeking to make concessions to Khrushchev in Berlin at Germany's expense, perhaps in the hope of increasing trade with the Soviet bloc.

Pres. de Gaulle, too, continues to create uncertainty about the direction of French policy. He is dedicated to following a more independent and nationalistic line both within Europe and the Atlantic Alliance. That is bound to cause friction.

• **Critical Time**—All this uncertainty will challenge the new Secretary of State directly and massively. Washington's role, ever since World War II left the U.S. in the center of the world stage, has been that of the pacesetter and the peacemaker for the West.

The challenge comes at a time, too, when support is weakening in Congress for the internationalist policy line set after the war, notably for liberal foreign aid and trade programs that are the main tools of foreign policy.

• **Urgency**—The major challenges—Allied disunity and Soviet probing—will have to be met head on within the next few weeks.

On Apr. 29, the Big Four Western foreign ministers meet in Paris to try once again to form ranks in a common approach to the Berlin crisis. Thirteen days later, the foreign ministers of the U.S., Britain, and France are scheduled to confront Soviet Foreign Minister Andrei Gromyko at Geneva to prepare the ground for a Big Four summit conference this summer. Both meetings will be crucial. For the degree of Allied unity forged at the first will be decisive in determining how risky a game the Soviets will play in the East-West negotiations.

The sheer immediacy of these critical negotiations and their complexity make it virtually certain that Herter will continue to play a key role in them in order to assure continuity of policy.

• **Gaping Seams**—There is no doubt that Dulles' retirement will leave an awkward gap at the conference tables. Dulles in fact already has been sorely missed in Allied councils.

Early in February, already racked with pain, he made a whirlwind tour of London, Paris, and Bonn to try to hammer out a common Allied position before going to the hospital. He thought he had succeeded in getting Allied agreement on a firm but flexible negotiating position, involving some daring shifts in earlier Allied positions on the German problem.

But in subsequent consultations, the seams of Allied unity gaped open again more widely than before. This cannot fairly be blamed upon Herter. With the responsibility but without the authority of Secretary of State, he hardly could be expected to develop the forceful leadership that Dulles wielded in earlier crises.

II. One of a Kind

Dulles' formidable prestige, however, did not rest entirely upon the power of his office. It was the product of his own extraordinarily strong character. And it is hardly likely any successor, however wise or able, will be able to conduct U.S. foreign policy in the same way Dulles did.

"Dulles didn't make U.S. foreign

policy; he was policy," one of his close associates said this week.

• **Firm Tactics**—Dulles' conduct of his office was unique in many respects, reflecting the unique qualities of the man himself, which have achieved an almost legendary status around Washington.

He was autocratic as Secretary of State. He made it clear from the beginning that he and he alone was formulating and executing foreign policy.

Probably no Secretary of State in history has enjoyed so fully the confidence and support of the President. This went to the point of frank dependence upon Dulles in foreign policy questions.

He was tough on his subordinates, driving them to the limit of physical endurance, but often leaving them with the frustrated feeling that their views were being brushed aside. This was a deliberate tactic.

"Dulles had no respect for any opinions, no matter how persuasive in themselves, whose author wasn't prepared to defend them at least two or three times under heavy and often brutal criticism."

• **Politically Shrewd**—Dulles didn't hesitate to cut down his rivals, anyone who seriously challenged his conduct of foreign policy. The most obvious victim was Harold Stassen, who differed with Dulles on foreign aid and disarmament policy. He was kicked upstairs and then out of the Administration. Yet Dulles handled himself shrewdly in the politically most vulnerable job in Washington.

His legalistic turn of mind made him an adroit diplomatic tactician when dealing with Western statesmen used to operating within a framework of law, sometimes less so with non-Westerners. It also gave a conservative tone to policies that often were more radical than they appeared to be.

• **Moral Crusader**—One thing distinguished Dulles more than any other as Secretary of State—his strong moral bent, which gave a special kind of assurance to his conduct of foreign policy. His sense of religious mission was so frankly revealed, for a hard-headed statesman, that he frequently was accused of hypocrisy. But Dulles really sees the defense of the free world against Communism as a crusade against an evil force. He also has no doubt our Communist foes eventually will be undone or forced to reform by the inhumanity inherent in their system.

• **On His Own**—Dulles' successor will have to make his own way. A somewhat different concept and conduct of foreign policy will not necessarily be less effective after the inevitable period of adjustment. Soviet policy is not so reckless nor Allied division so deep, that a temporary falter in U. S. leadership need be disastrous.

Nobody in Washington is bold enough this week to speculate in concrete terms about the changes in U. S. foreign policy that could flow from the change in command. But the general feeling is that basic policy aims will remain the same, dictated by the impersonal forces of national interest. As for tactics, the betting is that a new man, lacking Dulles' confidence and prestige, probably will tend to be less rather than more flexible in the immediate coming struggle with Khrushchev.

A Suitor for New York Subways

Financier O. Roy Chalk says he's a willing buyer for the sprawling, deficit-ridden New York transit system, but the city is not likely to take him up.

No cause is so dear to the heart of a New York City politician as the cheap subway fare. Twice since World War II, nonetheless, growing deficits have forced increases—in 1948 from a nickel to a dime and in 1953 to 15¢. But frequent talk since then of going to 20¢ has met an indignant "no."

Of course, New York faces the same pressures—fewer passengers and higher costs—that have forced other cities to impose fares of 20¢ or even a quarter. New York's solution has been to make the taxpayer subsidize the straphanger, by giving the city the job of making all capital outlays for the system.

That means the semi-autonomous New York Transit Authority (BW—Aug.24'57,p78), which has been running the system ever since the state legislature removed it from City Hall in 1953, has had to worry only about meeting operating costs. On that basis, the authority has been able to keep the 15¢ fare and for a while even to build up small surpluses.

• **New Troubles**—The continued drop in the number of riders, however, caused an operating deficit in fiscal 1958, and this fiscal year the system is running at a deficit again. The authority has managed to wangle some help on operating costs from the city—$11-million to subsidize the nickel fare for school children. And it's asking for more—$7-million for policing the subways. But the chances for city aid are running out, and with a new labor contract coming up next fall, the breakthrough to 20¢ seems more likely than ever.

At the same time, the city has become increasingly stingy with capital outlays for transit. It has had to weigh the need for new rolling stock and modernization of stations—to say nothing of new lines—against the need for new schools, streets, and such. This year, it's spending the last of a $500-million subway bond issue that was outside the city's debt limit. From now on, there will be even less money to spend.

• **Power for Sale**—Against this background, the city's Board of Estimate recently agreed to sell the subway system's three power plants despite political pressure against the deal. Consolidated Edison contracted, subject to a forthcoming auction, to buy the plants for $126-million and thus relieve the city of some of its capital outlays for transit.

The auction, it was believed, would be little more than a formality, since nobody else was expected to bid.

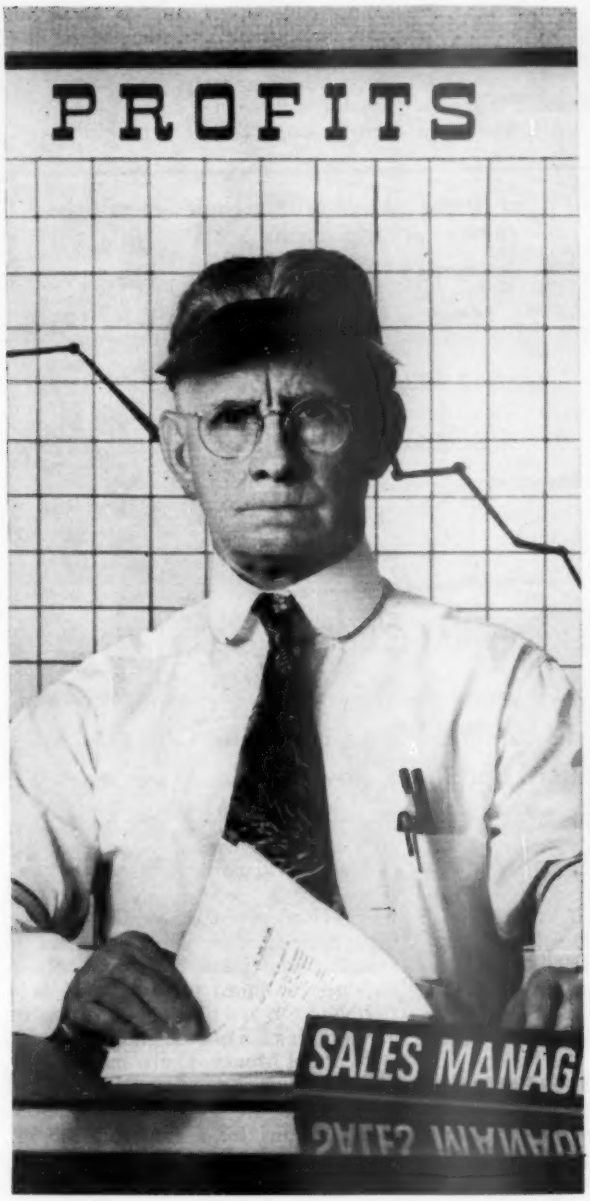
• **Chalk Talks**—Last December, however, Charles L. Patterson, chairman of the Transit Authority, was a fellow guest at a cocktail party with O. Roy Chalk, president of Trans Caribbean Airways and D. C. Transit System in the nation's capital (BW—Oct.18'58,p163). Over a drink, Chalk expressed an interest in bidding for the power plants. "I thought you would buy the whole system," Patterson replied in jest. Chalk's answer: "Why not?"

Chalk says he had heard so much praise of the Moscow subways from friends back from visits to Russia that he decided he could make New York's the most beautiful in the world. He thought it over and—along with some unidentified backers—made what Patterson felt was a serious offer. Then Patterson introduced him to Mayor Robert Wagner. When the mayor reported Chalk's overtures to the Board of Estimate, the immediate reaction, according to an insider, was to ask: "Is the guy nuts?"

• **Almost Unprecedented**—On the face of it, Chalk's proposals do seem fantastic. Except for Phoenix, where a private individual bought the city's system, there hasn't been a sale of a publicly owned transit line to private owners for years. The trend has been in the other direction.

If someone were interested in buying a public system, why would it be the most complicated operation in the country—one saddled with deficits and a sanctified 15¢ fare? Says Chalk: "To prove I can do things."

• **The Terms**—Last week, Chalk submitted to Mayor Wagner the proposed terms for a 49-year franchise. Once these terms were settled, he would negotiate the price to be paid and what proportion would be in bonds and what, if any, in cash. So far, nothing



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has been said about price to be paid.

Chalk says he believes firmly that "to make money is one way to keep score." His terms should allow him to do that:

- He wants to be allowed to make 6½% net profit after taxes on gross operating revenues.
- He wants to retain the exemption from all state and city taxes now enjoyed by the Transit Authority.
- He wants to impose a 20¢ fare immediately. After two years, he wants permission to increase the fare over a three-year period in increments of 1¢ as costs rise—to a maximum of 25¢. After that, for the remaining 44 years, he would be allowed any fare needed to bring a 6½% return.
- He wants authority to engage in special charter or sightseeing services, as he has in Washington.
- He wants to pay only 3% interest and 2% amortization on any bonds he issues to the city in payment for the system.

• **Alternatives**—Chalk would assume $125-million of the city's outstanding improvement contracts, as well as the responsibility for maintaining and replacing rolling stock and properties. But he would want the city to build any completely new lines, provide a police force of 1,000, provide exclusive lanes for buses, pay the differential fare for school children, and provide 26 fringe-area parking lots.

No matter how he sweetens his offer, however, Chalk is likely to be rejected. The Board of Estimate has been cool. It has not yet thrown him down, but there is little question how it will decide. Whether the authority retains the system or whether Chalk gets it, a higher fare is inevitable unless the city agrees to subsidize subway operations.

Under Chalk, fares would have to be higher not only to meet his profit but also federal income tax—which together would take 13% or so of the revenue. Moreover, while Chalk would relieve the city of $50-million yearly in capital outlays—and free the board from the nightmarish task of choosing between new schools and subway cars—he would have to raise fares additionally to do it.

In the face of this certain City Hall reaction—and Chalk said he expected "temporary" opposition—why did Chalk make the proposal at all? One common theory: The splash the offer has made could help him expand his real estate operations in New York.

• **Sure of Success**—Chalk is confident that if he got it he could make a profit on the system. Partly, he would do it by payroll attrition—the same method by which the authority has sliced operating costs $100-million since 1955. He thinks he could attract more riders by sprucing up subways and buses.

As evidence, Chalk proudly cites his record in Washington, where he took over an allegedly run-down transit system from Louis Wolfson in 1956. Since then, he has increased earnings, paid off debts, regained passengers, and improved service. Thanks to the air conditioning installed on some buses, he is something of a hero to riders. And Congress is hearing complaints that his successful sightseeing service is driving smaller operators out of business.

These indicators	at these levels . . .	have broken their old highs . . .	established in . . .
FRB industrial index*	147	146	Feb., 1957
Personal income (in billions, annual rate)*	$368.6	$365.4	Feb., 1959
Retail sales (in millions)*	$17,692	$17,605	Dec., 1958
Construction (in millions)*	$4,544	$4,539	Jan., 1959
Steel production (thousand tons)	11,567	11,049	Oct., 1956

* Seasonally adjusted

The Indexes Break Records

March figures confirm a speedup in business recovery, except for one fact: Unemployment stays high. Gains in hardgoods industries offer hope there, however.

It's official now. Business statistics for March, released this week, run up a list of new high levels (table) that confirm a further speedup in industrial recovery in that month. This springtime spurt in factory work and construction brings hope to the jobless in the recession-hit industrial cities of the North (page 91).

Strongest confirmation of recovery comes from a jump of the Federal Reserve Board's Industrial Production Index to a new high of 147. This key index had been worrisome in its laggard behavior through the winter. After a sustained rise of 15 points from last April's low of 126 to November's 141, it had started edging up only one point a month.

• **Spreading to Durables**—The breakthrough to a new record in March is heartening evidence that the business recovery is spreading into the heavy manufacturing industries, the sector of the economy that was hit hardest by the recession. It brightens employment prospects in areas that depend on activity in hardgoods.

Spurred by buyers' fears of a strike, steel set the pace in industrial output with a record-breaking 11.5-million ingot tons in March. This easily topped the old high set in October, 1956; it was 85% ahead of March, 1958.

Other hardgoods industries such as autos, farm and construction machinery, appliances, electronics, and office machinery helped to boost the FRB index, along with continued high production of nondurable goods.

The construction index, too, reflected rosy business health. As a whole, March construction topped the previous high, posted last January, and ran 15% ahead of the previous March. Roadbuilding continued to be a strong bolstering factor, and private housing starts moved near a 1.4-million annual rate.

• **Plenty of Money**—Dollar measures of March business matched the rise of physical output. They show there's plenty of fuel for a further climb in business.

Personal income remained high throughout the recession, yet it rose $3-billion in March to set another all-time record, 6% ahead of March '58.

In March, too, consumers gave further evidence that they are in a readier spending mood. Easter shopping and improved auto sales boosted the retail sales total to still another new record. Seasonally adjusted, March sales topped last December's record high and outran the previous March by fully 10%.

• **Still Below Capacity**—Despite all the statistical evidence of the nation's recovery, one grim fact remains: Unemployment in March remained swollen at 4,362,000, arguing strongly that the economy was still operating well below capacity.

Further employment gains, therefore, can come only if industry achieves far larger output than in the record-breaking month of March.

Know your AIM*. . . Pittsburgh Plate Glass does . . .

Packaging Lumber Speeds Unloading and Handling

Acme Idea Man H. W. McCurry serves Acme Steel Company customers with new handling and packaging ideas.

The Pittsburgh Plate Glass Company of Henryetta, Oklahoma, is now receiving shipments of packaged lumber in box cars. This new technique speeds materials handling and permits important economies from time of arrival to production line use. (Idea No. U1-19)

The lumber is packaged at the mill, then loaded into box cars and braced by the interlace securement method, using heavy-duty Acme Steel Strapping. The shipment arrives at Pittsburgh Plate Glass Company in excellent condition, ready for fast unloading with mechanical handling equipment.

Savings gained from mechanical unloading are further increased by production economies. Formerly, lumber sizes were manually selected for production use. Packaging the sizes of lumber in the sequence they will be used on the production line has eliminated manual handling.

***Know your Acme Idea Man.** He will work with you to help improve handling of your incoming supplies. Call him at your nearest Acme Steel office or write Dept. BGU-49, Acme Steel Products Division, Acme Steel Company, Chicago 27, Illinois. In Canada, Acme Steel Company of Canada, Ltd., 743 Warden Ave., Toronto 13, Ontario.

ACME STEEL **STEEL STRAPPING**

In Business

• • •

Bartley Back in Solid Fuel Making As Head of New Rocket Company

Charles E. Bartley is back in the rocket industry, after a swift career in which he founded Grand Central Rocket Co. in 1954, built it into a leading maker of solid propellants, and sold it last year to Tennessee Gas Transmission Co. for a reported $6-million.

Bartley's job is president of **Rocket Power, Inc., a company just set up to make solid fuels for moderate thrust rockets and missiles,** starting with a planned $1-million plant at Mesa, Ariz.

Rocket Power is wholly owned subsidiary of Gabriel Co., Cleveland auto parts supplier, whose diversification program now offers a corporate roof wide enough to shelter the entire process of designing and building small rocket engines.

• • •

Steel Productivity Dropped in '58, But Experience Points to New Rise

Figures on labor productivity for 1958, released this week by the Bureau of Labor Statistics, seem likely to be cited in the coming steel negotiations. Steel is only one of a score of industries covered, but the statistics provide ammunition for both producers and union.

In steel, the new count shows a drop of 6.6% in physical output per man-hour during last year's recession. Since 1956, the index (based on 1947 as 100) has fallen from 130.4 to 122.3. However, over the entire 11 years in which BLS has kept count every year, there has been an average annual rise of 2%.

No figures are available for 1959, but **a sharp rise in steel productivity followed each of the two previous postwar recessions,** as this summary shows:

1948	100.4	1953	118.8	1957	128.9
1949	102.8	1954	115.9	1958	122.3
1950	111.9	1955	129.4	1959	?

BLS formerly issued productivity figures at 10-year intervals, shifting to the annual basis in 1947.

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Appeals Court Rejects FTC Price Charge Where Cuts Do Not Affect Competition

This week, the U. S. Court of Appeals in Chicago handed down a ruling that could have far-reaching effect on a string of price discrimination cases brought by the Federal Trade Commission against various companies. The court set aside a FTC cease and desist order against Anheuser-Busch, Inc., and declared, in effect, that **price discrimination does not exist where those who are charged different prices are not in competition.**

Anheuser-Busch in 1954 reduced beer prices in the St. Louis market, without making similar reductions elsewhere, contending it was meeting local competition "in good faith." But FTC charged illegal price discrimination, holding that higher prices in other markets subsidized the St. Louis reductions. FTC later used the same argument against Pure Oil Co. Oil marketers termed potential effects of FTC action "catastrophic" (BW–Feb.28'59,p76). The present ruling upsets the FTC approach.

• • •

AEC Yields a Bit to Democrats, Will Push Gas-Cooled Reactor

The Atomic Energy Commission, striving to keep the peace with powerful Democrats on Capitol Hill, has promised to press the building of a 25,000-kw. gas-cooled reactor at Oak Ridge.

AEC Chmn. John A. McCone told the Joint Committee on Atomic Energy that **a site for the reactor had been picked and that construction would start as soon as final Congressional clearance is received.**

Democrats on the Hill have strongly favored the gas-cooled reactor. Now they are expected to return AEC's favor by approving a project it wants—a government-backed gas-cooled reactor of more advanced design that has been proposed by Philadelphia Electric Co. and 52 other utilities.

• • •

Business Briefs

After nearly a year, the federal government is unofficially reported to have decided to leave it up to the states whether or not they **bar foreign materials on the federally aided highway program.** But states that restrict imports—as a dozen do now—will have to abide by the Buy American Act, which stipulates that domestic goods be given a 6%-10% price preference, beyond which imports must be allowed to compete.

The Colorado legislature this week **eliminated federal income taxes** as a deduction on the state corporate income tax. The ban, part of a $17-million tax package, makes Colorado the 21st state, among the 35 that tax corporate income, to allow no credit for the federal tax.

Philadelphia this week extended for another six months **its experimental subsidy** to enable two commuter railroads to run more trains provided they cut fares (BW–Feb.21'59,p28). At the same time, a $100,000 subsidy was extended to the 11-mile city stretch of the Reading's Fox Chase line. Reading will add four roundtrips, and unlike the earlier deals, the city will collect the fares on the new trains.

Those no-moving-parts thermoelectric generators are getting bigger. Westinghouse Electric Corp. has a Navy contract to design the largest yet, a 5-kw. job. In these devices, current is generated by maintaining a temperature gradient between certain types of materials. The Navy contract will permit Westinghouse to find which are the best materials, and how best to use them.

NOW! TWO CONVENIENT SIZES...

Large Economy Model at $635,000 • Handy Personal Model at 98¢

For the first time, you can now get the Fairchild F-27 – first American turbine-powered transport in service with airlines and corporations – in two (2) sizes. The Large Economy Model, priced to sell at only $635,000, gives you everything you've ever wanted in an airline or executive transport:

300 m.p.h. speed . . . luxurious, roomy, stand-up cabin (40 seats for airlines, custom-designed flying office or cargo carrier for business) . . . air conditioning . . . pressurization . . . rapid simultaneous loading of passengers, cargo . . . sleek, modern design . . . unsurpassed short-field capability . . . operating economy . . . easy maintenance . . . propjet power.

The Handy Personal Model F-27, superbly styled by master model-maker Revell from authentic Fairchild blueprints, is yours at a rock bottom 98 cents at your local model dealer. The Fairchild insigne or decals of a number of the 13 airlines that have purchased the F-27 are available. Or you may prefer to decorate with insignia of 20 large corporations that have ordered the F-27.

Whether you choose the Handy Personal Model at 98 cents, the Large Economy Model for only $634,999.02 more, or both for $635,000.98, you've got the best buy in aircraft today.

Penny for penny, dollar for dollar, the F-27 is your best investment as a profit making airliner, as an efficient, fast, far-ranging corporation transport.

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General Contractor: George A. Fuller Company, Altanta, Ga.

Mechanical Contractor: Standard Engineering Company of Washington, D.C.

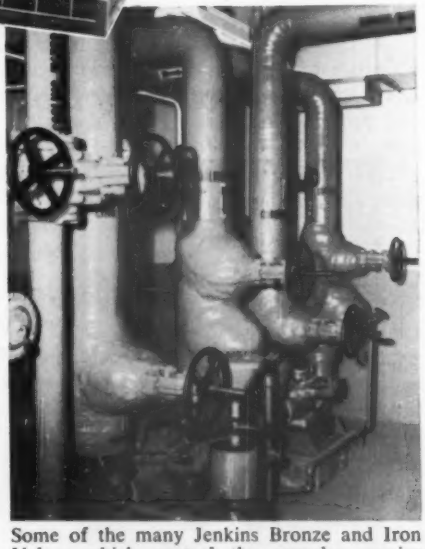
JENKINS VALVES control important service lines

DESIGNED to be the most modern glass container plant in the world, covering 619,000 square feet and highly automated, this new Owens-Illinois plant can produce millions of glass containers annually.

In the glass manufacturing operations trouble-free service piping lines are an essential. Cooling operations require a flow of recirculated water equal to 2-million gallons per day. The furnaces consume about 3-million cubic feet of natural gas per day.

The fact that Jenkins Valves, in large numbers, are used to control water, gas, steam, compressed air and air conditioning lines in this new plant will not surprise most experienced architects, engineers and contractors. For nearly a century, "JENKINS" has been a common specification to assure maximum reliability.

It will pay you to have this important assurance when you specify or install valves . . . especially since Jenkins Valves cost no more. Jenkins Bros., 100 Park Avenue, New York 17.



Some of the many Jenkins Bronze and Iron Valves which control the complex service piping system in the Owens-Illinois plant.

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VALVES

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WASHINGTON OUTLOOK

WASHINGTON BUREAU
APR. 18, 1959

The Democratic Congress doesn't know what to do.

Here's why: Business is on the upgrade. Employment figures are rising. Unemployment figures are declining. Nearly everyone agrees that a new boom is in the making—a boom that will run through 1960, the next national election year. So the Democrats are over a barrel.

The party's earlier plans are of little use. After their November sweep of House and Senate, the Democrats came into Washington with many big plans, mostly based on spending for recovery and jobs.

Now they hesitate. The January rush to spend has given way to a moderate "let's watch and see" position. The plain fact is that even many of the big spenders, fresh back in Washington after a long Easter recess with the voters, are having some second thoughts. What they now realize (page 91) is that unemployment is spotty—a local, not a national, problem. And they have also heard lots of talk to the effect that "we can get along, if there's no big new inflation."

The prospect is for major compromises on spending.

Federal money for airport construction will be held down. The final bill that goes to Pres. Eisenhower will be well under the $465-million the Senate voted back in the winter. It will still be over the $200-million Eisenhower asked. But the point is that the Democrats are backing off.

Federal aid for homebuilding and buying is in the same category. The showdown in Congress is some weeks off. But there's little prospect that the Democratic Congress will confront Eisenhower with the huge program that was popular in Congress two months ago.

It's a planned trimming by the Democrats. It will show up later in other politically slanted legislation—aid to depressed areas, aid to farmers, aid to the unemployed, etc. You will also see this in defense. The big push to outdo Eisenhower's recommendations for the armed services is losing momentum. The political aim still is to be a little more open-handed in spending than Eisenhower is. But there's much less zest for plans that would invite sure vetoes—vetoes that would stick.

—•—

Union bosses are mad. They poured millions into last year's elections for House and Senate. It's a fact that most of the new Democrats in both houses received labor money in their campaigns.

Now the labor leaders aren't getting what they want.

A hike in the minimum wage, now $1 per hour, is unlikely. And there's no assurance that minimum wage coverage will be extended.

The proposed labor reform law may well go beyond what the unions are supporting—may put some new restrictions on union bosses.

The Senate's labor investigation will go on. Union leaders had hoped their support for the Democrats would end the Senate's McClellan investigation of union-sponsored rackets. But it hasn't—and it won't.

A leading Congressional Democrat describes it this way:

"The unions have succeeded in putting their name plate on our collar.

WASHINGTON BUREAU
APR. 18, 1959

But what the union leaders are finding out is that their name on a collar doesn't necessarily mean that they hold the leash."

—•—

Eisenhower has a real problem in filling jobs. His term is up after next year's elections. He can't run again.

Two-year assignments find few takers. Eisenhower now knows this. You can see it in the shifting of jobs.

The resort is to promotion of No. 2 men and to appointment of defeated congressmen.

Look at what defeated congressmen are getting:

Ex-Sen. Barrett of Wyoming is in Agriculture as general counsel. Ohio's defeated Dennison is a consultant on the Civil Rights Commission; Indiana's Wilson is in the Federal Housing Administration.

The Democrats aren't making things any easier. They are dragging their heels on confirming appointments, perhaps hoping to make bargaining points out of them. Examples:

Potter Stewart, named to the Supreme Court, is taking a real heckling. He will be confirmed, but he will be embarrassed first, by Southerners.

Commerce Secy. Lewis Strauss also will be confirmed eventually. But first he will take a beating in Democratic-run hearings. The former AEC boss will have to explain the Dixon-Yates contract, along with his attitude toward TVA and other government-financed operations.

But the inability to get manpower goes much further. When Eisenhower first came in, businessmen were eager to take on top jobs. But in the tail end of his Administration, the President finds it hard to bring in new men at the top. In addition to using ex-GOP congressmen, he has to promote "from within." He will get a lot of good men this way, but mostly they are not politically important men.

Take the Pentagon, for example. Secy. Neil McElroy will leave next summer. Deputy Secy. Quarles probably will be promoted.

Federal Trade Chmn. John W. Gwynne is resigning. The new chairman will be GOP Commissioner Edward T. Tait or Commissioner Sigurd Anderson, former GOP governor of South Dakota. Earl Kintner, FTC general counsel, may get the one-year remainder of Gwynne's term.

Antitrust chief Victor Hansen is leaving. No. 2 man Robert A. Bicks is a candidate for the job but his youthfulness—he's only 32—may be held against him.

—•—

Eisenhower is shouldering a bigger and bigger load.

To date, he carries it well and is making a better impression than he did some time back. Sherman Adams used to keep people and problems from him where possible. Now the White House staff is giving him more information, and more problems, than before. Ever since Dulles fell sick, Eisenhower has taken on more authority on foreign policy.

Contents copyrighted under the general copyright on the Apr. 18, 1959, issue—Business Week, 330 W. 42nd St., New York, N. Y.

Glass adds a new dimension

This is the New York City office of the famed industrial design firm Raymond Loewy Associates.

Note how men who work with color, shape, and space have deftly combined these elements to create the right kind of atmosphere.

Then note the *lighting*, and the panels in the ceiling. These are Albalite panels, made by Corning. Albalite is an opal glass. It provides a pleasantly high level of diffused illumination, the kind that helps set the mood for more efficient work.

Glass by Corning was picked for this task because only glass can be *engineered* to give you precise control over intensity, glare, direction, and color. And, glass looks good because it *adds* texture; *lasts* because it won't warp, fade, or discolor.

Lighting glassware is only one way in which glass can be engineered to solve specific problems—from hermetically sealed capacitors to sparkling heat resistant cooking ware, from laboratory glassware to eyeglass lens blanks, from radiation shielding windows to corrosion-resistant piping.

For a look at the many ways glass is solving problems in every industry and business, write for "This Is Glass." Or for specific information on lighting glassware, send for "Commercial Lighting Application Guide." Write to 46 Crystal Street, Corning, N. Y.

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Nature couldn't thrive without cross-pollination.

Neither can business.

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That's why a lot of business men like to talk over their problems with our officers at the Continental.

They know us as more than "just a place to borrow money." It is also a place where ideas take seed.

Since practically every business problem is a financial problem, we have had to become familiar with the problems of practically every business under the sun.

In addition to what we know about your business, its needs and its problems, we can also draw upon more than a century of banking experience to bring you *that plus* which makes decision-making easier and more fruitful.

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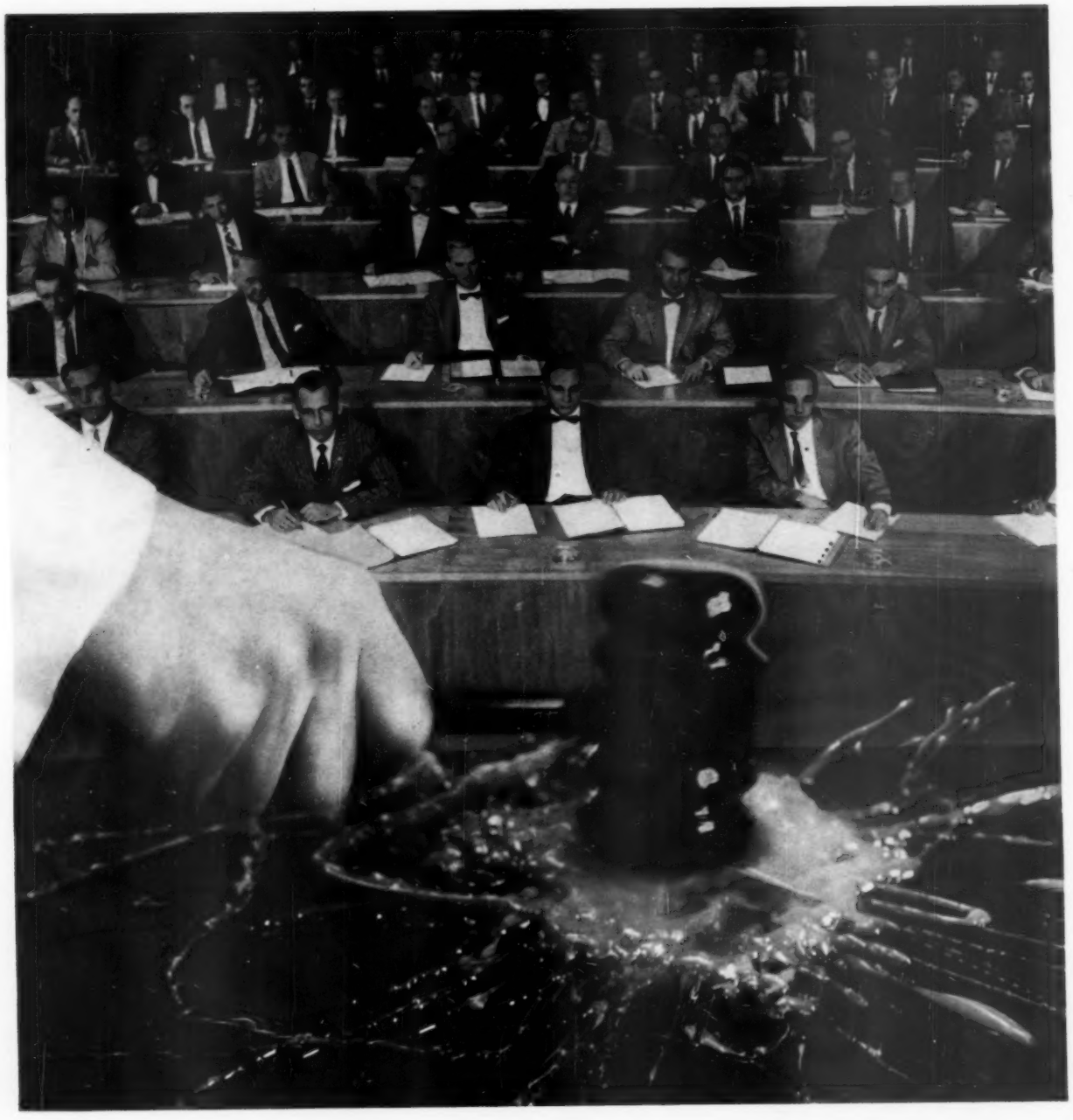

Where Texaco shatters costly ideas

The old idea that lubrication is just maintenance routine is breaking up like old-type grease under the speaker's gavel.

Here at the Texaco Research Center in Beacon, N. Y.—largest such facility—Texaco Lubrication Engineers learn the latest in lubricant technology and *how to apply it* as a major factor in cost control.

Thus, they can help your maintenance, production and purchasing people apply the principles of Organized Lubrication to reduce your costs.

Send for our book: "Management Practices that Control Costs via Organized Lubrication." The Texas Company, 135 East 42nd Street, New York 17, N. Y., Dept. B-90.

LUBRICATION IS A MAJOR FACTOR IN COST CONTROL

LABOR

Tension Builds Up on Labor Front

Pre-negotiation steel maneuvers, rubber strike, more frequent picket line clashes all point to a rough bargaining year.

Tough talk about wages and prices in the steel industry, the first major strike of 1959 (in the rubber industry), and more action on picket lines (pictures) marked a growing tenseness in labor-management relations during the past 10 days. There was a reason: Contract bargaining is now picking up in breadth and importance, and taut lines are being drawn by employers and unions.

• **More Pressure**—The economic influences of the fourth quarter of 1958 carried over into the first three months of this year. According to the Bureau of National Affairs, Inc., a reporting service, an analysis of 909 contract settlements showed wage increases, through March, at the same 8.4¢-an-hour median level as in late 1958.

BNA noted that its bargaining study suggested that "recession-induced restraints on the level of wage settlements haven't lifted as yet."

But, union pressure is building up for larger gains, in wages and in other benefits. The Federal Mediation & Conciliation Service has alerted its field staff to the possibility of stormy negotiations ahead; it says 1959 is "rapidly shaping up into a pretty rough bargaining year."

Negotiations could develop into "a real Donnybrook," FMCS warned, if unions go through with plans to press for bigger gains and employers hold fast to their anti-inflation "hold the line" philosophy.

• **Steel Debate**—Last week, the steel industry indicated once more that it intends to resist "inflationary" wage demands this year, when it bargains with the United Steelworkers. Acting jointly, 12 major steel companies, including the U. S. Steel Corp., called upon USW to continue present contracts to July 1, 1960, without any changes in wages or other terms.

The proposal was advanced in a letter addressed to David J. McDonald, president of USW, and signed by negotiators for the companies. R. Conrad Cooper, of U. S. Steel, delivered it personally.

In asking for a one-year "freeze" of wages—to "avoid further employment cost increases"—the industry group acknowledged that the economy seems to be moving moderately upward after more than a year of low activity. But, it stressed: "This progress is being artificially accelerated . . . by heavy demand stemming from our customers' fear of an interruption of steel supplies in the case of a strike by the Steelworkers . . . after June 30."

PICKET LINE pressure to keep company official out of struck Bridgeport plant and . . .

. . . nonstrikers out of Edison (N. J.) plant indicate new tenseness in labor relations.

The letter urged a settlement that would "permit a more normal growth to replace the artificial bulge of synthetic demand and a subsequent period of decline and dislocation."

McDonald reacted immediately—and negatively. He rejected "out of hand" the producers' "freeze" request.

• **Propaganda Step**—It was obvious to everyone—the producers included—that McDonald would turn down the proposal and that his executive board would back him.

If steel contracts signed in 1956 were merely extended for a year, with no changes in terms, mill workers would get an automatic "productivity" raise averaging about 8½¢ an hour on July 1. To USW, that's a minimum basis for bargaining. It refuses to take seriously—now—any proposal for anything less.

The union criticized the industry proposal of a "freeze" as a publicity move. Undoubtedly, although the letter was addressed to McDonald and the union, its real direction was to an inflation-wary industry and public.

Although the letter wasn't specific, it intimated that prices would be held along with wages.

• **Union Counterattack**—In turn, USW's executive board called on the industry to agree that "there is to be no increase in the price of steel during the term of any agreement which we may reach." The union said it is "prepared to conduct our negotiations in the light of this principle."

But USW contends that wages must rise even if prices are held for one to three years; increases are warranted, it says, by increased output per manhour and by the industry's profits.

To improve the prospects for a settlement before a July 1 deadline, the union expressed a willingness to begin bargaining in New York on May 4 instead of May 18.

The pre-bargaining exchange gave new emphasis to the concern both the

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industry and the steel union feel over public opinion—or public censure—in the negotiations this year.

• **Rail Situation**—Meanwhile, bargaining troubles loom distantly in the year's second most important negotiations, in the railroad industry. Carriers have turned down wage demands for 12% raises and called on the unions to agree to a 15¢-an-hour pay cut—a counterdemand the unions rejected as "ridiculous" (BW—Apr.11'59,p126).

The steel proposal of a one-year wage "freeze" and the railroads' urging of a wage cut are indicative of a growing management concern over labor's insistence that pay must go up annually.

• **Rubber Dispute**—However, the country's first major strike of 1959 was not a wage strike.

When a deadline arrived without agreement on non-wage issues, 25,000 United Rubber Workers members quit jobs in 18 U.S. Rubber Co. plants. They hit the bricks for gains in such things as supplementary unemployment benefits, pensions, insurance, and other similar benefits. Wages will be negotiated this midyear.

URW and U.S. Rubber negotiated quietly for five weeks. When bargaining broke off, and workers struck, the company reported 58 union demands still unsettled—along with 39 demands by the company for contract revisions.

Talks between the company and union resumed the first of this week. Meanwhile, URW and three others of the industry's Big Four spurred efforts to ward off stoppages at midweek in their plants.

Although rubber bargaining has been eclipsed by that looming in steel, it will be important because the issues involved—SUB, pensions, insurance, and other fringe benefits—are common ones for employers negotiating contracts this year.

UAW Cracks Down in Fee Case

Reuther fires Toledo Auto Workers leader who accepted commissions from a New York consultant.

Walter Reuther, with the backing of his United Auto Workers executive board, last week cracked down suddenly and severely on a Toledo auto union leader who admitted accepting "commissions" from a former New York management consultant. The crackdown eased a potentially embarrassing situation for Reuther and UAW.

Reuther fired Peter Zvara "summarily" from the UAW staff after conferring with him in Detroit. Afterward, still angry, he announced:

"Since Zvara admitted to us that he had accepted commissions from a New York engineering consultant firm, one which has on occasion been involved in collective bargaining in plants under contract with the UAW, it is clear and beyond doubt that Zvara is in serious violation of the ethical practices code adopted by the UAW constitutional convention and is guilty of improper conduct as a representative of UAW."

• **Hearing Ordered**—Reuther's board upheld the discharge and ordered Zvara to stand trial on charges that—if sustained—could lead to his ouster from UAW.

The UAW action taken "in the interest of clean and decent unionism" is linked with a New York probe into possible improper or illegal relations between a former New York management consultant and union officials. Under the direction of District Attorney Frank S. Hogan, the probing reportedly has been centered on the activities of George A. Elliott Co., Inc., before its sale several years ago by its founder.

• **UAW Involved**—During the probe, New York investigators questioned Zvara and other unionists in Toledo. They requested—and got—access to bank and other records. Later, Hogan's office asked Zvara to appear before a grand jury in New York. On advice of his attorney, Zvara refused, although he denied any wrongdoing.

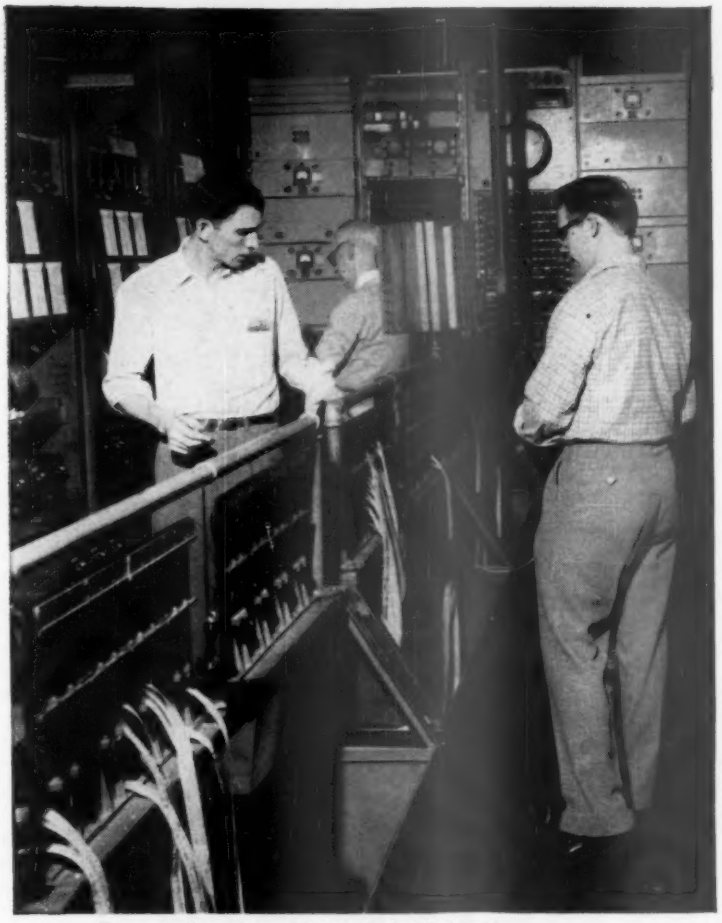
The refusal led to a contretemps between Hogan and Reuther. The district attorney commented that he understood that it is the policy of AFL-CIO unions to "require officials of labor unions to testify voluntarily and to be questioned with regard to matters relating to their official duties before grand juries and other investigating bodies without invoking the Fifth Amendment."

An exchange of telegrams and statements came to a climax when UAW protested what it called Hogan's "egregious and unwarranted assault" on Reuther's integrity in "petulant and intemperate remarks." But, Reuther called Zvara to Detroit for a conference, and the crackdown followed quickly.

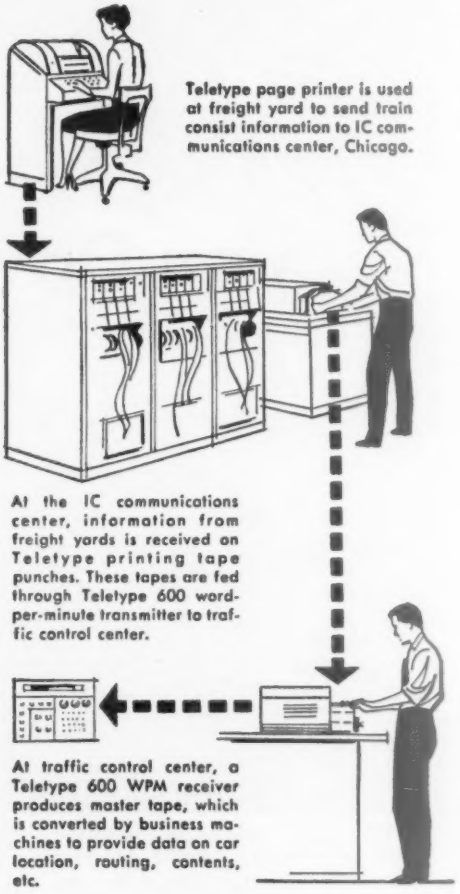
• **Fees for "Leads"**—According to UAW, Zvara, the assistant director of the union's Doehler-Jarvis Dept., admitted that in the early 1950s he accepted "commissions" from the firm then headed by George A. Elliott. He said that these had nothing to do with bargaining or other union relations, but were for suggestions that led to new business for Elliott.

Zvara denied before Reuther that he ever used any form of coercion to ease

How to keep track of 50,000 freight cars . . .



Communications center at Illinois Central Railroad.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the way for the Elliott company's recommendations, but acknowledged that the work of the consultant did include matters which normally would be subject to union bargaining with the companies involved.

Afterward, apparently stunned by the Reuther discharge, Zvara commented, "I told . . . very frankly about the situation and said that I, in my opinion, violated no law and therefore I do not think that I compromised the ethical code of the AFL-CIO in any way."

• **Immunity Issue**—Zvara said that he declined to appear voluntarily before the grand jury because he had not been told what he would be accused of in the event he became a defendant in the case, and because he was asked to "waive all immunities . . . while testifying." He did not believe this to be wise.

UAW did not act because Zvara refused to appear before an investigative body. What incensed Reuther and his board was the Toledo man's admission that he had accepted payments from a consultant, innocently or not. A UAW aide said that "after that came out, it didn't matter whether Zvara testified or not—he was through."

Pinning Down the Needle Trades

Grand jury indicts an International Ladies' Garment Workers' local, three trade associations, and five individuals on charges of conspiring to monopolize trade in four states.

A federal antitrust action filed in the ladies' garment industry may upset long-standing, complex, and close labor-management relationships within the $6.3-billion-a-year industry. It could also have far-reaching repercussions in other industries in which unions and employers have a close rapport.

The needle trades' trust battle began to take shape last month when a special federal grand jury in New York City indicted five men, three trade associations, and an International Ladies' Garment Workers' Union local on charges of conspiring to restrain and monopolize trade and commerce in the manufacture of women's blouses in New York, New Jersey, Connecticut, and Pennsylvania. Shops in the four-state area produce over half of the blouses sold at wholesale in this country.

• **The Cast**—Co-defendants under the indictment are the contractors' associations—the Greater Blouse, Skirt & Neckwear Assn. and Slate Belt Apparel Contractors' Assn.; jobbers' National Assn. of Blouse Manufacturers; and ILGWU's Local 25. Four of the individuals indicted are officials of the employer groups or the union. The fifth, Harry Strasser, is an outsider.

The importance of the case to ILGWU was underscored when it announced that Adlai E. Stevenson, twice Democratic candidate for President, and former Federal Judge Simon H. Rifkind would head the legal staff representing the union in the antitrust fight. Former Atty. Gen. Herbert Brownell, Jr., is counsel for the Slate Belt Assn.

• **Pioneer Case**—Brownell's successor in the Justice Dept., Atty. Gen. William P. Rodgers, Jr., described the government action as the first use of the Sherman Antitrust Act against racketeering. The indictment did not make clear how this might be done.

Strasser, according to the indictment, "had no apparent connection with the ladies' blouse industry," but nevertheless was powerful enough to settle disputes among the associations. A government spokesman characterized him as a representative of "the shadow government that flits in and out of this industry."

• **Charges**—Racketeering as such was not at issue in the grand jury's indictment of the union and the three trade associations.

The formal indictment charges that the union and the three associations conspired to "(1) fix the prices jobbers and manufacturers of blouses pay to blouse contractors for the fabrication of blouses, (2) allocate the blouse contracting work of members of National [the jobbers' association] among the members of Greater and Slate Belt [the contractors' associations], and (3) require members of National to give all their blouse contracting work to members of Greater and Slate Belt."

The net effect of the conspiracy, according to the indictment, was to eliminate competition among contractors belonging to the two associations. The Greater Blouse, Skirt & Neckwear Assn. has a membership of approximately 330 contractors, principally in the medium to better and high-priced lines. The Slate Belt Apparel Assn. represents some 100 contractors who manufacture "popular priced" blouses sold at $24 a dozen or less.

The defendants are not charged with any attempt to restrain trade among the highly competitive jobbers.

Each count calls for fines up to $50,000 plus a year in prison for the individuals named in the indictment.

• **Implications**—David Dubinsky, peppery president of ILGWU, hotly denounced the indictment as "politically motivated." It could have far reaching implications for the garment industry.

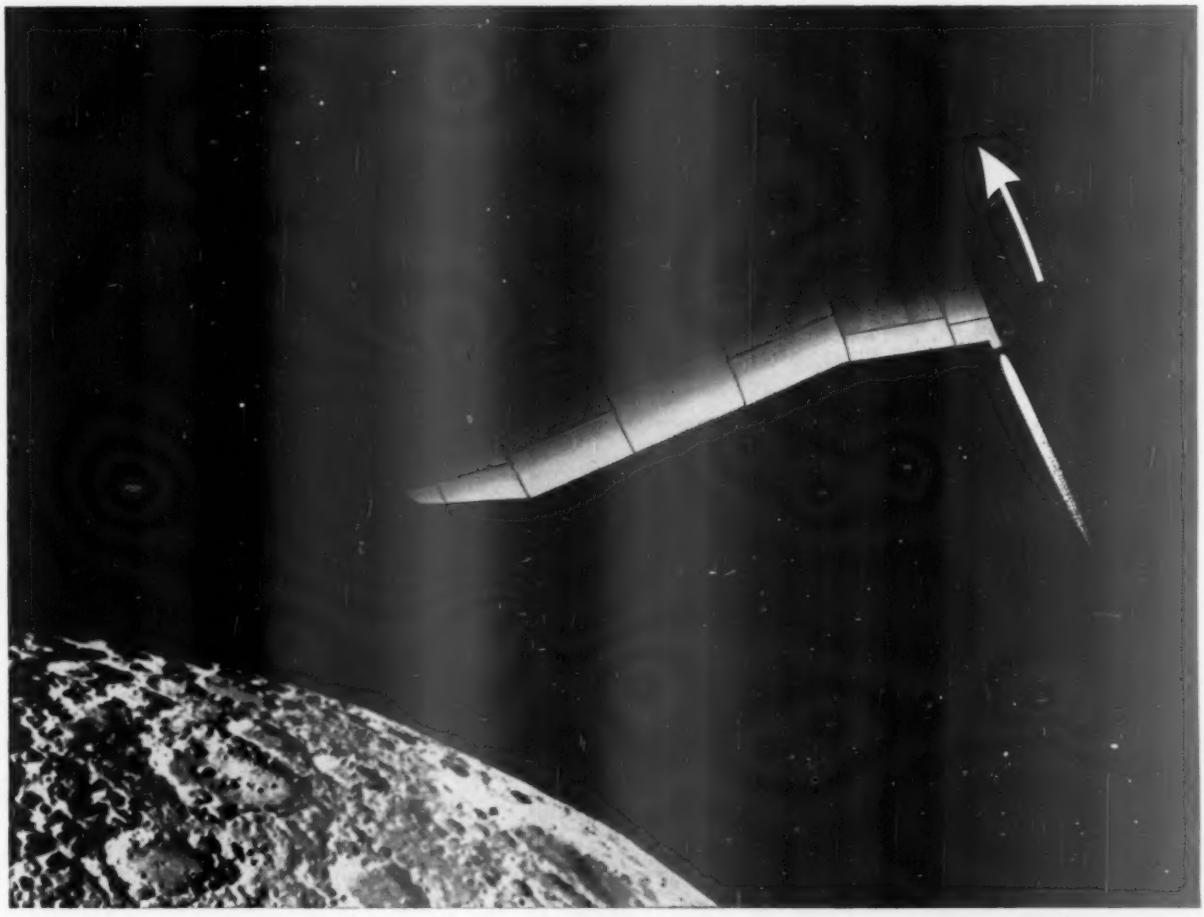
The union and the employer groups fear that it could mean a breakdown of the complicated relationship among the jobbers, who buy the material and sell the garment, and the contractors, who put the garment together, and the union, which over the years has worked to stabilize this volatile relationship. The long-established practice of jobber responsibility for labor conditions in contracting shops is opened to attack. Although the practice varies in different segments of the industry, it involves the power of the union to limit the jobber in some fashion to the use of a specified group of contractors.

In the blouse industry, this means that the jobber may designate any number of permanent contractors. During the busy season, he may name others as temporary contractors in order to get his work out; but when work is slack he must see that it is divided equally among his permanent contractors. This, says the union, spreads the work among the workers. In addition, labor costs are stabilized. The blouse local negotiates wage payments first with the jobbers' association, then the same terms are usually adopted by the contractors' associations. The jobber agrees to give his work only to contractors who have an agreement with the union.

• **ILGWU's Stand**—"These provisions," says Wilbur Daniels, assistant to the ILGWU president, "have no function, no other purpose, and no other effect than to protect the workers."

The union argues that the jobber is the real employer. He buys the material, sets all the prices, and sells the garment. The contractor is "a glorified foreman or division chief." Unless some control is exercised by the union, says an ILGWU spokesman, "we'd be back to the old auction block system. Then, the jobber used to call in a bunch of contractors and get them to bid each other down; the winning low price came out of the workers' wages."

Theoretically, the union does not interfere with the relationship between the jobbers' associations and those of the contractors. But the presence of the union is a powerful policing factor. It is this element of control and implicit policing power that the union believes to be challenged by the antitrust action against the blouse industry. **END**



HOW TO MAKE A "LEFT TURN" IN OUTER SPACE

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This is but one of the space contracts which we have secured. Others include the development of control rod drive mechanisms for an AEC nuclear-powered rocket and mass spectrometers which can make thousands of analyses per second of the upper atmosphere in which rockets or satellites are traveling. In addition, we are making nuclear radiation investigations to definitely determine how various products and materials stand up under varying degrees of radiation—knowledge important to the operation of nuclear power plants for aircraft and space vehicles.

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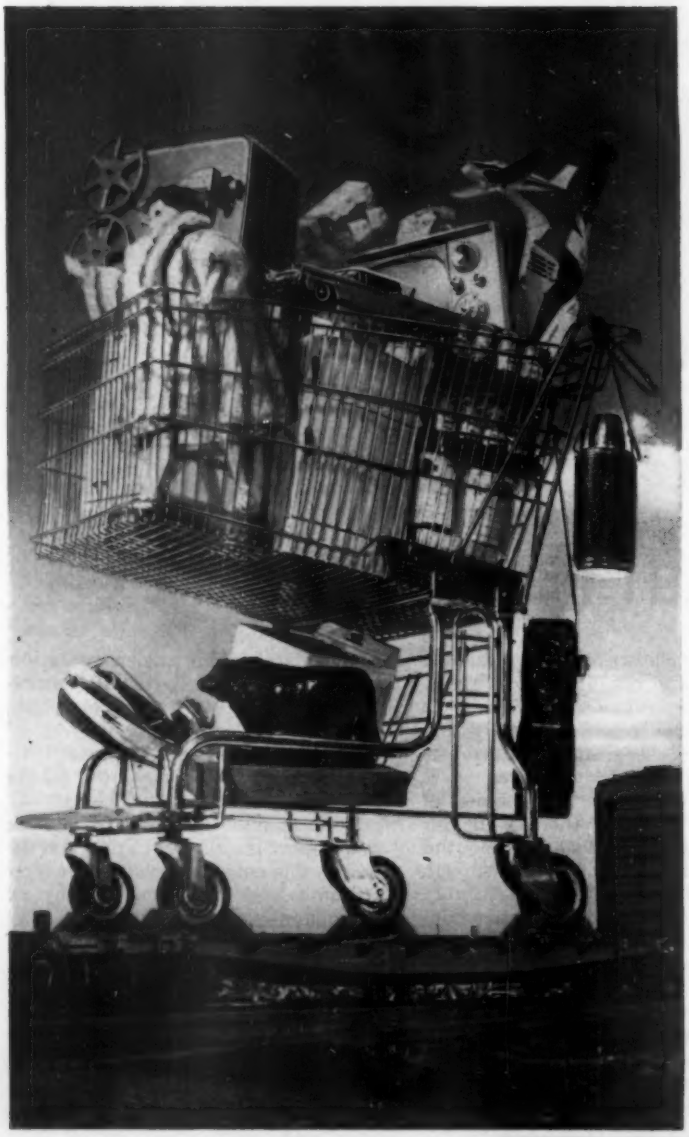
How to have a boom without a bottleneck



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In Labor

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Preventable Labor Turnover Said to Cost Needle Trades $36-Million a Year

Preventable labor turnover sets back manufacturers in the needle trades $36-million a year and affects 30% of the industry's work force annually, according to a study released this week in Chicago.

A survey of 768 firms—producers of ready-to-wear goods, underwear, shirts, knit goods, and work clothes—showed that some **90,000 workers are affected annually at a cost to employers of $398 per employee.**

Almost all of the 90,000 quit their jobs; only one in 30 was discharged. Layoffs not classified as preventable affected another 17% of the industry's labor force.

The Wolf Management Engineering Co., of Chicago, which made the survey, said that the money lost because of preventable labor turnover equaled the profit that could be realized from sales of $700-million.

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Textile Pay Boosts in South Spread Northward to Berkshire Hathaway

Textile wage increases moved north last week when Berkshire Hathaway, Inc., with eight mills in Massachusetts and Rhode Island, signed a three-year contract with an average 7% increase in pay—about 10¢ an hour—according to estimates by the Textile Workers Union of America. Reopenings on wages will be possible in 1960 and 1961.

Textile producers in the South started a spreading series of pay increases in the industry in February, when they put into effect raises of 9¢ and 10¢ an hour (BW—Feb.7'59,p28). Shortly afterward, TWUA asked for a 10% pay boost in northern and mid-Atlantic mills.

The Berkshire Hathaway terms, expected to set a pattern for mills above the Mason and Dixon Line, approximates the southern cents-per-hour raise figure.

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Leftist Unions Preparing to Get Tough For Shorter Hours With No Cut in Pay

Watch labor's leftwing for possible militance—even strikes—for a shorter work week without any loss of pay. The leftists, outside AFL-CIO, would like to make an important breakthrough in this area, embarrass the slower-moving federation unions.

During the past few weeks, three unions that are the heart of the leftwing labor bloc have begun buildups for a 35-hour week at 40-hour pay—as a 1959 goal.

The United Electrical Workers plans to press, wherever possible, for a cut in hours this year. It says that hours "must be shortened without a reduction in pay to provide jobs for the millions of unemployed" and contends that it can be done "feasibly" by industry "in view of the record-breaking profit levels."

The Mine, Mill & Smelter Workers has set a 35-hour work week as a bargaining goal in the nonferrous industry this midyear. It must be watched particularly because of the rivalry that exists between MMSW and the United Steelworkers in some areas; MMSW will be out to do better in bargaining than USW.

The International Longshoremen's & Warehousemen's Union headed by Harry Bridges also has set a 35-hour week as a bargaining demand to "stabilize" employment.

The ILWU demand for a shorter work week is accompanied by one that would require employers to pay into a union fund for dockworkers any savings—on a straight-time basis—from the installation of automated equipment on the docks.

• • •

Hod Carriers in Midwest Extend Contract for a Year Without Raise

Two locals of the powerful Hod Carriers', Building & Common Laborers' Union in East St. Louis and Granite City, Ill., have agreed to extend contracts for a year—to August, 1960—without an increase in wages or benefits.

The agreement is considered an indication of a changed labor-management relationship in the area. The union is one of those often criticized, up to a year ago, for practices that contractors said retarded industrial construction in the area.

The Southern Illinois Builders Assn. recently asked union help in holding down labor costs. The Hod Carriers' locals agreed to a wage freeze to "help stimulate construction activity and the economy" of the area.

• • •

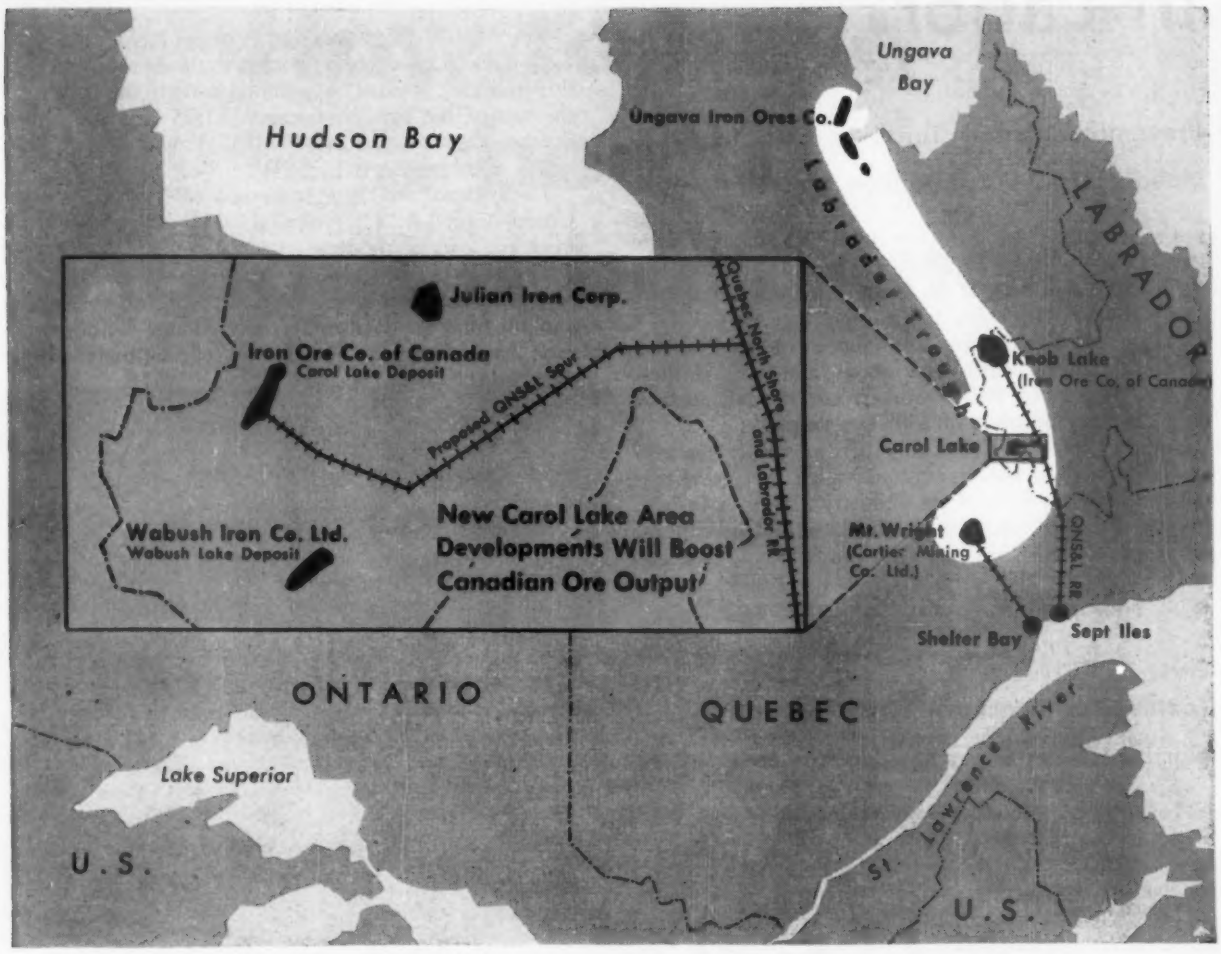
Construction Industry Prepares To Fight for Factory Repair Work

Labor and management in the construction industry have banded together to battle industrial unions for a bigger slice of construction work in major industrial plants.

Representatives of more than a dozen national contractor groups and presidents of the 18 Building Trades unions met in Washington last week to organize a Construction Industry Joint Conference. It will be a permanent body, patterned after similar groups in the needle trades and coal mining.

The immediate target is to assert claims over construction, repair, and maintenance work in industrial plants. Construction people fear that industrial unions will seek increasingly to get this work for their own members as automation cuts down the number of production-line workers. **Talk is of a major public relations campaign aimed at top management on the benefits of contracting-out construction work.**

The conference appointed a Joint Administrative Committee to study specific problems and devise solutions for them. It is headed by Dr. John T. Dunlop of Harvard, one-time chief of the industry's board for settling jurisdictional disputes.



Labrador's Ore Rush Quickens

With domestic iron ores leaner and blast furnaces needing better raw materials, more Canadian reserves are being tapped.

For 650 desolate miles from the north bank of the lower St. Lawrence River to Ungava Bay, Canada's Labrador Trough stretches toward the Arctic. The name belies the fact that, as the map shows, most of it lies in Quebec. But the name is quite accurate in suggesting that it's a bleak and remote region.

However uninviting to the sightseer, though, the Labrador Trough is more alluring than ever to steelmakers and iron miners for its rich preserves of iron ore, first tapped five years ago. Spotted up and down the map are three areas where the ore is already under development—Knob Lake, by Iron Ore Co. of Canada; Mt. Wright, under construction by Cartier Mining Co., Ltd., a subsidiary of U. S. Steel Corp.; and Ungava Bay, by Cyrus Eaton interests. Seven major U. S. steelmakers, accounting for 70% of the nation's capacity, are active in the region.

This spring, exploitation of a fourth area—Carol Lake and nearby Wabush Lake—is beginning, again with backing of steel companies in the U. S. The new burst of activity may push total investment in the Labrador Trough's ore beyond $1-billion. Within a decade, the wilderness should be capable of turning out 40-million or more tons of ore a year—nearly two-thirds the current production of the great Minnesota ranges, now the world's largest single source of iron ore.

I. The Lure of Labrador

To bring Labrador Trough output up to this level, more than $250-million will be spent in the two newest programs:

At Carol Lake, Iron Ore Co. of Canada is starting to build a pilot processing plant near the ore beds. On completion, the operation will be the third biggest iron ore mining layout in Canada—behind IOCC's own Knob Lake properties and Mt. Wright. Among its customers will be a number of U. S. companies that own shares in IOCC—including Bethlehem Steel, Armco Steel, Wheeling Steel, Youngstown Sheet & Tube, National Steel, Republic Steel, and Hanna Ore Mining Co.

At Wabush Lake, Pickands Mather & Co. plans to build a pilot plant on behalf of Wabush Iron Co., for which it is managing agent.

Wabush is owned by Steel Co. of Canada, Ltd., Youngstown Sheet & Tube, Interlake Iron Corp., and Mather Iron Co.

A new railroad line will link these developments with the 350-mile route of the Quebec, North Shore & Labrador RR, down which ore travels to docks on the St. Lawrence.

The reason for all this activity, of

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6631

". . . interest in beneficiating has opened Labrador ore of lower grade to exploitation . . ."

STORY starts on p. 54

course, is that the steel industry is coming to rely more and more on Canadian sources of iron ore. For many decades, black ore could be dug from Minnesota's Mesabi Range and neighboring Lake Superior areas, transported down the Great Lakes in giant ships, and fed directly into the nation's blast furnaces. With this "direct shipping" ore, an iron content of 51.5% was considered average; this figure was used as the basis for ore pricing.

But in 1954 IOCC began shipping ore averaging 53% iron from Knob Lake. It had other virtues, such as a low silicon content, and, all in all, it ranked with the finest ore U.S. companies had ever used.

Meanwhile, Minnesota ore was running leaner. This made it necessary to spend more money on beneficiation to upgrade it for use in the blast furnace.

• **Technological Switch**—At the same time, technical changes within the steel industry were weighting the balance even further in favor of Labrador ores. Costs of building new blast furnaces were mounting so high that steelmen were busily studying ways to eliminate the furnace entirely or at least to increase the output of existing furnaces. One way to accomplish the latter, they found, was to improve the quality of the raw materials that went into the furnace.

To do this, the industry began neglecting Minnesota's 51.5% ore and turning instead to foreign ores and low-grade ores that could be improved by concentration. It started mining taconite—a very hard, low-grade ore, previously considered an uneconomic source of iron because of the cost of processing it. But after processing, taconite yields an iron-rich concentrate that increases furnace output. The industry also intensified the search for new deposits either of ore that was rich to begin with or ore that could easily be concentrated. Labrador soon became the prospectors' prime hunting ground.

II. Latest Projects

When it began mining Labrador ore in 1954, IOCC took the highest grade first. At the time, in estimating Labrador's reserves, ore was counted only if it met or exceeded the quality standards then prevailing. Since then, the interest in beneficiating has opened Labrador ore of lower grade to exploitation. Attention has turned to Carol Lake, for example, because its ore can be processed into concentrates with an iron content of about 62%.

The Carol Lake project, managed by M. A. Hanna Corp., will be a testing site for several methods of beneficiating ore. Launched early this year and slated for completion this summer, the pilot processing plant will put out 10 tons of concentrate an hour—and, by 1962, 6-million tons a year. The product will be shipped separately to IOCC's owner-customers or blended with ore from Knob Lake.

Officially, IOCC says its Carol Lake project will cost more than $100-million, but other industry sources estimate the bill at perhaps as much as $250-million.

• **Neighbor**—Not far from the Carol Lake development, at Wabush Lake, Wabush Iron Co.'s layout will take shape. Pickands Mather will manage the properties, which include a lease on three square miles held by Wabush itself and a lease on another two square miles held jointly by Pickands Mather and Steel Co. of Canada, Ltd. As Steel Co. is one of the owners of Wabush, it's all in the family.

Both leases were purchased from Canadian Javelin, Ltd., but this, too, was something of an intramural deal. Javelin's lease on this and other properties stems from the Newfoundland & Labrador Corp. (NALCO), which holds mineral and timber rights to 24,000 sq. mi. of Newfoundland and Labrador. NALCO was originally formed by the Canadian government, but it's now owned by Wabush Iron and Javelin.

The Wabush Lake lease deals provide for payment of more than 85¢ a ton in royalties to Javelin, which, in turn, will pay a minimum of 32¢ a ton to NALCO. Since Javelin is one of the owners of NALCO, it will, of course, ultimately be paying part of this to itself—and another share to Wabush Iron.

• **Customers Waiting**—The Wabush development will cost, it is estimated, anywhere from $100- to $250-million. Some observers question whether Wabush can corral enough customers to justify the project, but Pickands Mather hints that one or two major steel companies are waiting in the wings.

In the same general vicinity as Carol and Wabush Lakes, Canadian Javelin proposes to develop for itself ore property leased to a subsidiary, Julian Iron Corp. Pickands Mather will manage the property and provide a railroad spur to service it, but it has specified it will not go ahead with development unless it feels enough assured customers have been found for the ore. It's unlikely that this will come to pass soon; meanwhile, Pickands Mather is going ahead with plans for the pilot plant at Wabush Lake.

III. Ways to Process Ore

The ore that will be mined at both Carol and Wabush Lakes is specularite, a flaky rock that looks like a sparkling grade of shale. It is a mixture of hematite, a nonmagnetic form of iron oxide, and flaky quartz.

Unlike taconite, which is hard, specularite crumbles fairly easily. This means it can be processed without some of the costly crushing machinery necessary for taconite. But because it's low in magnetic properties, it's not susceptible to the relatively easy magnetic separation method of concentration used for taconite. Instead, three methods of separating the iron from the unwanted ingredients will be tested at both new installations.

• **Trial Processes**—The leading candidate at the moment is the Humphrey spiral method of separation. In this simple process, ground particles of ore and impurities are floated down a spiraling metal trough. Since the metallic ore is heavier, it flows faster and to the outside, while the lighter impurities stay on the side and drain off at intervals.

Hanna engineers working on the Carol Lake project are considering adding a flotation process to the spiral separation to increase yield.

The other two methods—high-intensity magnetic separation and electrostatic separation—are both controversial. In the first, a strong magnetic field is used to attract the hematite ore in specularite. This technique works, despite the low magnetic properties of hematite, but it consumes a lot of electric power in doing so. Electrostatic separation is a high-voltage system that has never been perfected for handling high volumes of iron ore.

Despite the expense of both these methods, the industry is interested in them because they operate with dry ore. Spiral processing uses wet ore, and for this reason it freezes to a halt in winter in the extreme cold of Labrador.

• **Straight to the Sinter**—One technical change in steelmaking is simplifying the plans for the new Labrador plants. This is the increasing use of sinter—a product made by firing ore with coal and, in some cases, limestone before feeding it into a blast furnace. Treating ore this way boosts the furnace's output.

Steelmakers using sinter want ore that can be fed into the sinter plant rather than directly into furnaces—and they find that ore in fine particles straight from the beneficiation plant fills the prescription. This means the beneficiated ore needn't be pelletized like taconite. So costly agglomerating equipment can be eliminated. **END**

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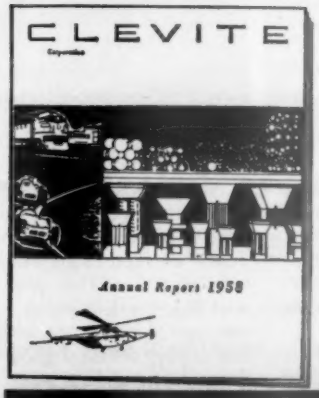
J. L. Myers
Chairman

W. G. Lafferty
President

	1958	1957
Sales and other revenues	$64,720,789	$72,672,288
Earnings per share	$1.60*	$2.08
Dividends per share	$1.15	$1.15

**$1.91 before change in depreciation method*



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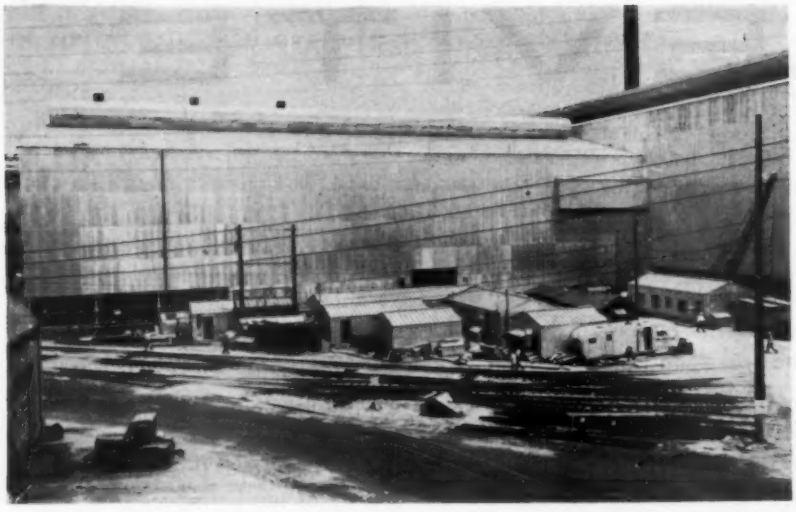


LUKENS' $33-MILLION EXPANSION:

How It Was Paid For

Steel company couldn't borrow enough elsewhere, and it didn't want to issue stock, so it borrowed from good customers.

When a company wants to borrow long-term capital, there are three obvious ways to get it: equity financing, private placement, or a public sale of bonds.

Lukens Steel Co. this week completed a two-year, $33.6-million expansion program that was financed in a completely different way. It got three of its customers to chip in with long-term loans for $20.5-million of the tab –$15-million from General Electric Co., $4-million from Allis-Chalmers Mfg. Co., and $1.5-million from S. Morgan Smith Co., now a part of Allis-Chalmers.

• **Logical Deal**—Having suppliers advance short-term credit, of course, is commonplace in business. Long-term borrowing from customers is rare, though it isn't unique. Such deals usually aren't bruited about too loudly, partly because other customers might think the lenders were exerting undue influence.

Still, financing by customers is a logical step for some companies that find standard routes of raising money cut off, for one reason or another. In Lukens' case, the deterrents were two:

• The Huston family, which owns roughly 39% of Lukens' stocks, stands fast against diluting its equity.

• Banks and insurance companies wouldn't advance the company all the credit it wanted.

Some corporate financial men point out that such customer-financing has drawbacks, too. They argue that it ties a company too closely to the lenders and could cause resentment among other customers. They also feel that the cost in many cases could be too burdensome, the terms too restrictive. For example, the Lukens' agreement gives the lender a say in the borrower's financial policy.

At the same time, a number of customers feel they don't want to loan out vast sums of money to one supplier. "We're not in the business of being money-lenders," one company official says. "We want to conserve our cash for our own expansion plans."

• **Mutual Gains**—The Lukens loan offers a fine example of how such a deal could work—particularly since the lending companies not only get their loans repaid but also obtain valuable priorities on steel and a market for some of their own products.

Up to now, the company has refused to discuss its arrangements. It wanted to make sure its new highly automatic facilities were all it had promised its lending customers they would be. Now that the plant is in operation, it is no longer reticent.

The new facilities include a 100-ton electric furnace that can turn out a "heat" of steel in four hours, compared with 10 to 14 hours in an efficient open hearth operation; a 140-inch slabbing mill that raises Lukens' rolling capacity anywhere from 25% to 40% depending on the product mix, and 12 new soaking pits.

• **Need for Expansion**—Lukens got the bug for its expansion program in 1955, when its customers began expressing concern over future supplies of steel plate, Lukens' specialty. The company (1958 sales: $98.8-million) is a distant third behind U. S. Steel and Bethlehem in steel plate capacity.

These customers saw their own businesses expanding, and they feared that the steel industry's plate-producing capacity wouldn't keep up with them.

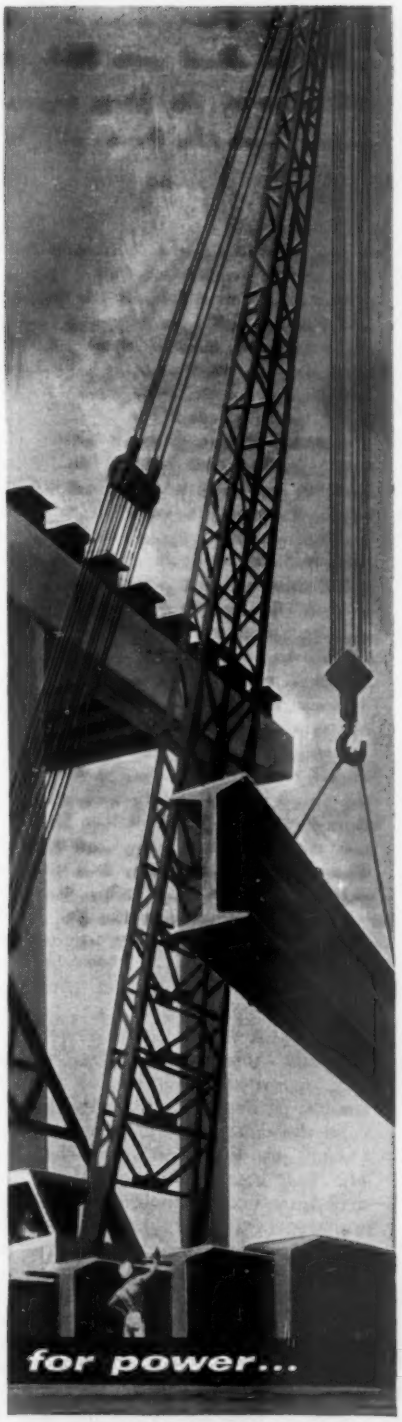
In early 1956, Lukens, aware of their fears and concerned about its own future prospects, queried 40 of its largest plate buyers to get estimates on their 5- and 10-year requirements for plate. After reading the estimates, Lukens decided it would have to increase its plate-producing facilities 50% if it wanted to maintain its share of the market. This meant enlarging total ingot capacity from 750,000 tons to 1.1-million tons. Cost: $40-million.

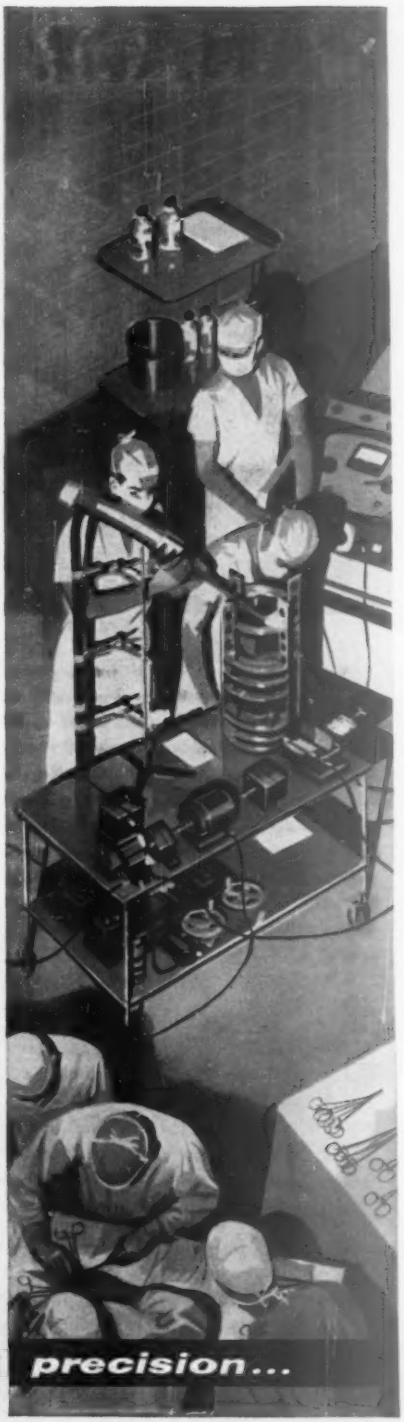
• **Getting the Money**—Where to get the money was a ticklish problem. Right off, the company ruled out equity financing. As Pres. Charles Lukens Huston, Jr., says, "Lukens has a long-standing policy of financing through retained earnings and favorable borrowings."

But it was too vast a sum to generate internally, and Lukens soon discovered that its financial structure couldn't support a heavy bond issue. It turned to the banks and insurance companies. But they weren't happy with Lukens' capital structure, either. In fact, they calculated that Lukens' borrowing limit should be $11-million, and it already had borrowed $5.6-million from an insurance company.

• **Asking Customers**—Unwilling to sell stock, unable to borrow sufficient funds, Lukens hit on the idea of asking its customers for a loan. Some bystanders credit the brainstorm to Vice-Pres. William E. Mullestein, but the company insists the idea came out of a regular Monday meeting of its management committee. In any case, the company hoped to borrow $39-million of the required $40-million from its customers in return for priorities on the purchase of steel plate.

Although a number of companies were intrigued by the idea, only GE, Allis-Chalmers, and S. Morgan Smith finally decided to go along. Recalls one GE official: "The pros of the deal sounded overwhelming. First, Lukens was one of our prime suppliers, and we had always been on good terms with it. Second, we didn't want to be caught short of steel in a boom era and be forced into the gray market or rely on foreign steelmakers. Besides, none of





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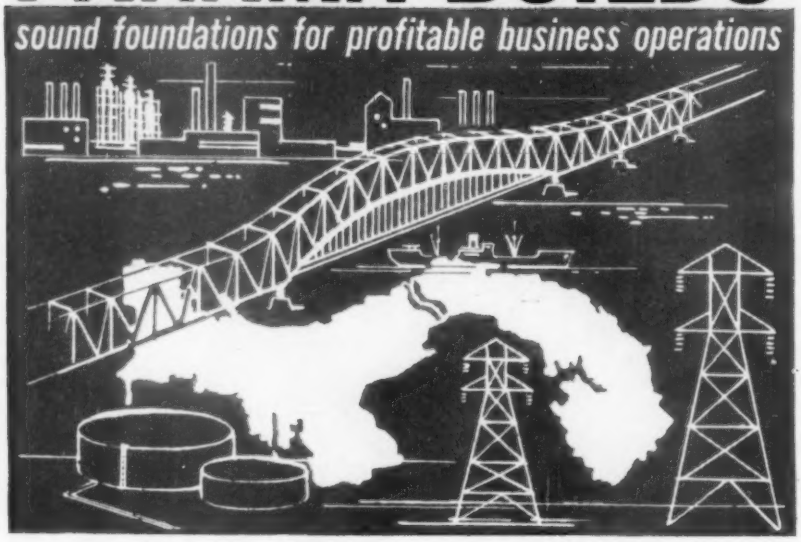

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Other important programs which will aid profitable operations for business in Panama include:

- The first section of a new industrial park in the City of Panama which was recently completed. Development of another industrial park in the City of Panama is under consideration.
- Extensive government road building projects which will help make accessible the untapped natural resources of the Interior.
- Widening of the Gaillard Cut of the Panama Canal and building of a new high level bridge across this waterway.

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". . . one factor that helped sell the deal was Lukens' willingness to buy equipment from the lenders . . ."

STORY starts on p. 60

the other steel companies were giving us any satisfaction when we asked about their future expansion plans."

One factor that helped sell the deal was Lukens' willingness to buy equipment from the lenders. GE and Allis-Chalmers supplied motors, generators, and pumps for the new plant, made a profit on these sales.

• **Cutting Down**—Lukens' other customers either didn't have the funds available or weren't impressed by the future threat of lean steel supplies. The company couldn't dig all the rest of its projected costs from its own pocket, but it did think it could generate some $13-million. So it scaled down its ingot capacity plan from the original 1.1-million tons to 930,000 tons, postponing plans for a second electric furnace.

• **Loan Terms**—The details of the 20-year loan are relatively simple:

Interest rates (monthly payments started this April) are set at ½% above the prime rate as set by a majority of three New York banks—Chase Manhattan, First National City, and Bankers Trust—at the end of the first full calendar week of the year. Thus, for 1959—since the rate prevails for the whole year—Lukens will pay 4½% interest, because the prime rate was 4% on that week. The interest must be paid each month, whether the lenders buy Lukens' steel or not.

While interest payments are obligatory, repayment of principal is more flexible. It depends on two things:

Purchases of all steel products from Lukens by GE and Allis-Chalmers. The two companies can get all the steel they need—subject only to such limitations as government priorities—and they pay regular mill prices for all they buy. (Lukens must maintain competitive pricing under the agreement; in other words, it can't jack up its prices at will.) In effect, then, the quicker GE and Allis-Chalmers buy steel, the faster Lukens repays the loan.

Lukens' own steel operating rate. If Lukens is operating at 95% or 100%, for example, the minimum amount of monthly repayment would be $10 per ton. This minimum is scaled down as Lukens' operating rate is reduced; at 65% or below, the minimum is $6 per ton.

Lukens also has the privilege of making larger debt retirement payments without coughing up any premium. In addition, if its cash throwoff exceeds $10-million in any one year, Lukens

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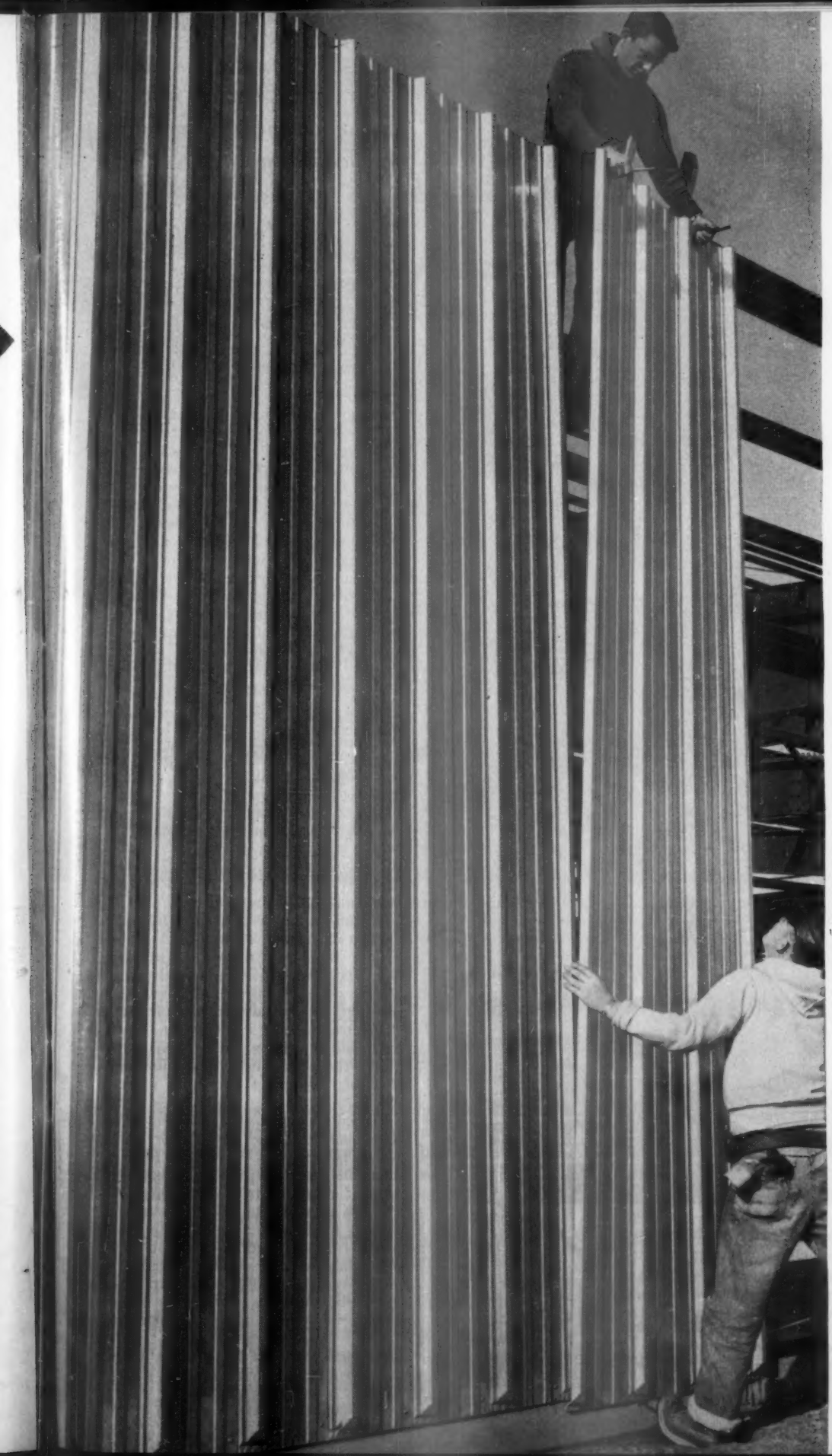

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"... Lukens backed into the arrangement when no other choice was available ..."

STORY starts on p. 60

must take 30% of the extra margin and make a pro-rata distribution to the two companies.

During the run of the loan, Lukens must maintain no less than $12-million in working capital and observe certain dividend restrictions. The company also is restricted in its acquisitions of other corporations and in its future long-term borrowing plans.

• **Good for Borrower**—Lukens is quite happy with the financial arrangement. For one thing, it is not stuck with a high fixed interest cost. Secondly, the loan payments have some flexibility.

Under the arrangement, though, it's hard to tell whether Lukens will get out cheaply in the long run or not. It all depends on what happens to interest rates and steel demand in the future. But flexible repayment of principal should take some bumps out of Lukens' road. In times of high-volume operations, the company can pay off large sums. When volume drops off, Lukens will not be burdened with heavy payments. It must pay off the notes by Apr. 4, 1979, but it feels it can do this without trouble.

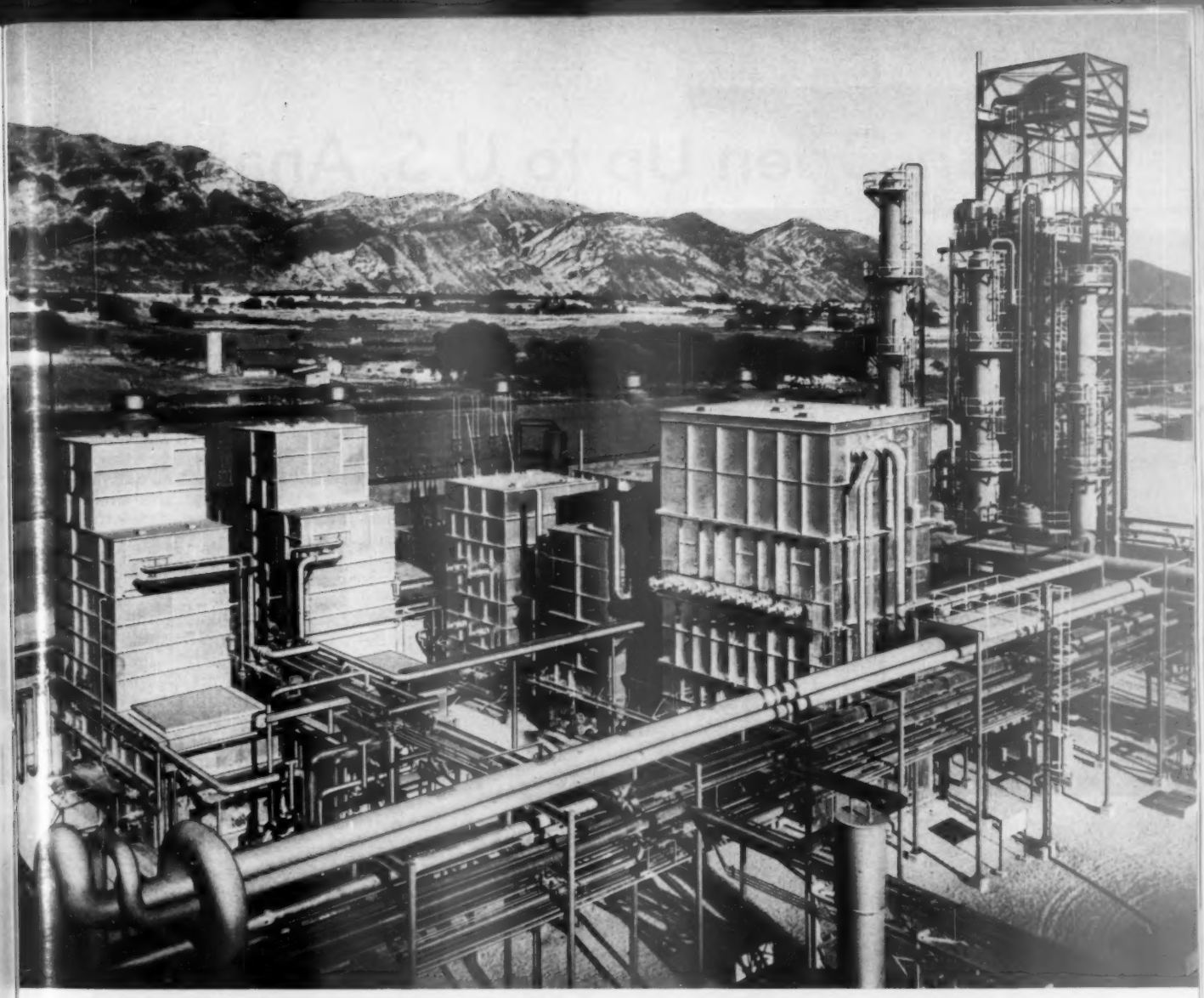
But the cost of the loan isn't the real issue for Lukens. The company did not plan to borrow from its customers, but backed into the arrangement when no other choice was available. It feels that it got a good deal, both because the interest payments are tax-deductible and because it pins down a ready market for its product.

Lukens, meanwhile, has taken a couple of steps to strengthen its financial position. In the past two years, it has paid off the $5.6-million insurance company note, and in June, 1958, it set up a revolving loan arrangement with three banks. Now it can borrow up to $11-million for any use, paying ¼% above the prime rate, with a minimum rate of 3% and a maximum rate of 4½%.

• **Good for Lenders**—For GE and Allis-Chalmers, the true test of the loan's value hasn't been met yet. Though demands for steel plate is fairly tight, neither company feels a real pinch yet.

GE's present business, heavy capital goods, for example, isn't as high as some time ago. But both GE and Allis-Chalmers foresee a big demand for heavy capital goods—particularly from the utility industry, which they see as coming out of its downward spending cycle.

"That's when the loan will really pay off," says a GE official. **END**



FOOD FROM COAL. Over 400 tons per day of fertilizer and chemicals for the West flow from the Intermountain area's first anhydrous ammonia plant. Blaw-Knox designed and built the plant for U.S. Steel's Columbia-Geneva Steel Division mill near Provo, Utah. The new plant also produces nitric acid and ammonium nitrate.

U.S. Steel gets more chemicals out of coal—

from a pioneer plant that Blaw-Knox designed and built

No facility like this had ever been built before at a major American steel plant. Hydrogen, extracted from coke oven gas, is combined with atmospheric nitrogen using Montecatini processes to produce ammonia and nitric acid. Blaw-Knox had to engineer and construct mammoth cold boxes where temperatures drop to 300° below zero, "prilling" towers thirteen stories high, miles of complicated piping.

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British Open Up to U.S. Analysts

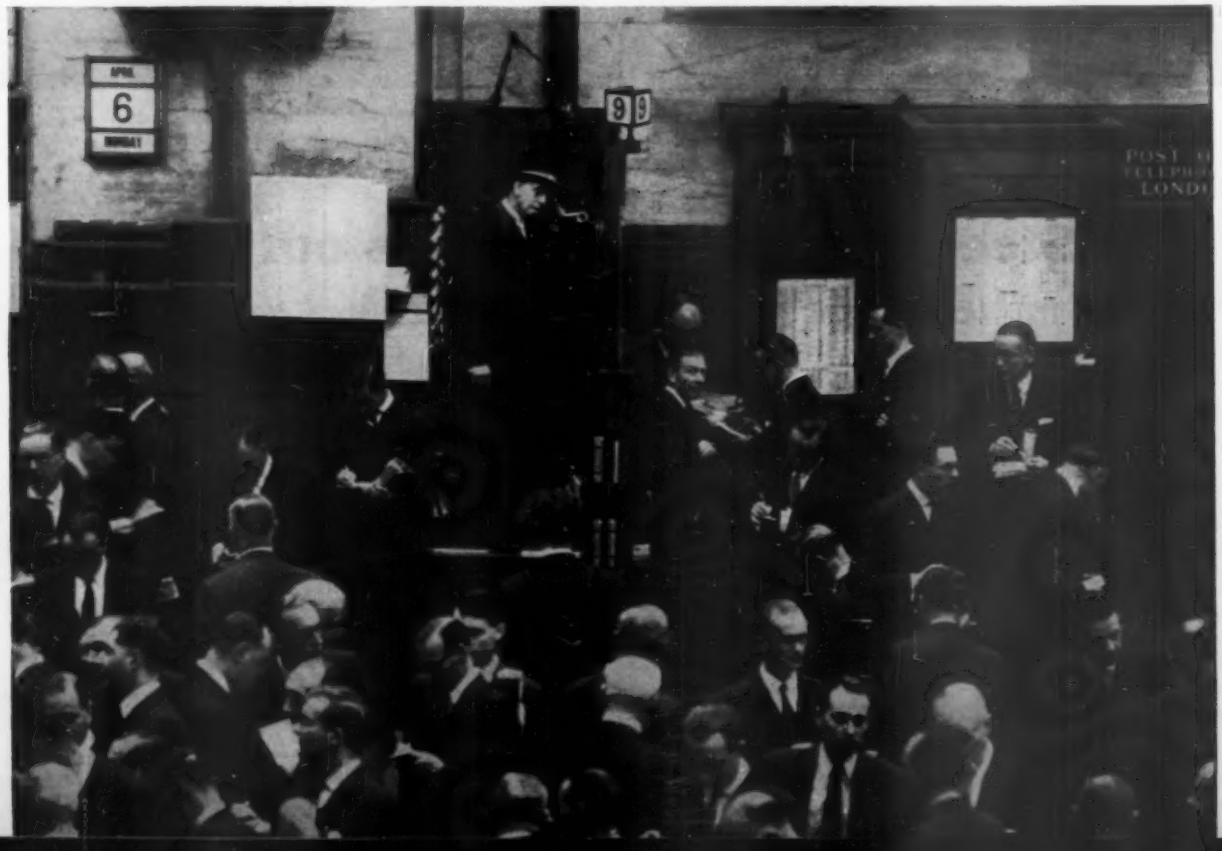
FROM THE BALCONY Americans watch London exchange. They weren't allowed to come down to trading floor from gallery.

Visitors from New York get more financial data, British papers complain, than companies give their fellow citizens.

As the pictures show, the 80 members of the New York Society of Security Analysts, in London on a busman's holiday last week, had a full schedule. They were wined and dined by executives of British corporations and given a behind-the-scenes look at the workings of the grandfather of financial markets, the London Stock Exchange.

This week, the group moved to the continent, first to Paris for visits with French companies such as Simca and a peek at the old Paris Bourse, then on to Italy, Germany, and Holland. The aim of the trip, according to the analysts themselves, is to get a first-hand look at European corporations and their methods of doing business. They seek to cash in on the growing American interest in European securities (BW–Feb.28'59,p95). The facts and figures they pick up, they hope, will come in handy in guiding the investment choices of their clients back home and in pro-

ON THE FLOOR man at center rear, called a waiter, receives message. "Jobbers' beside him close "bargains."



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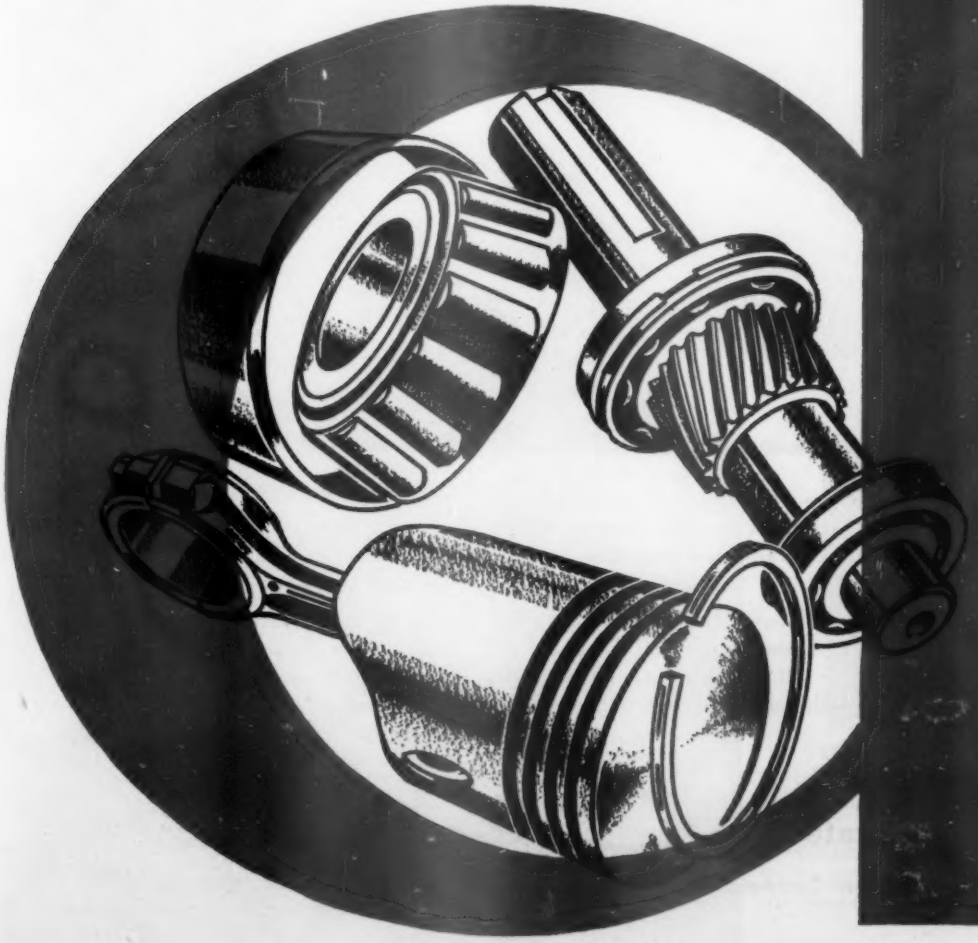

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(Story starts on page 68)

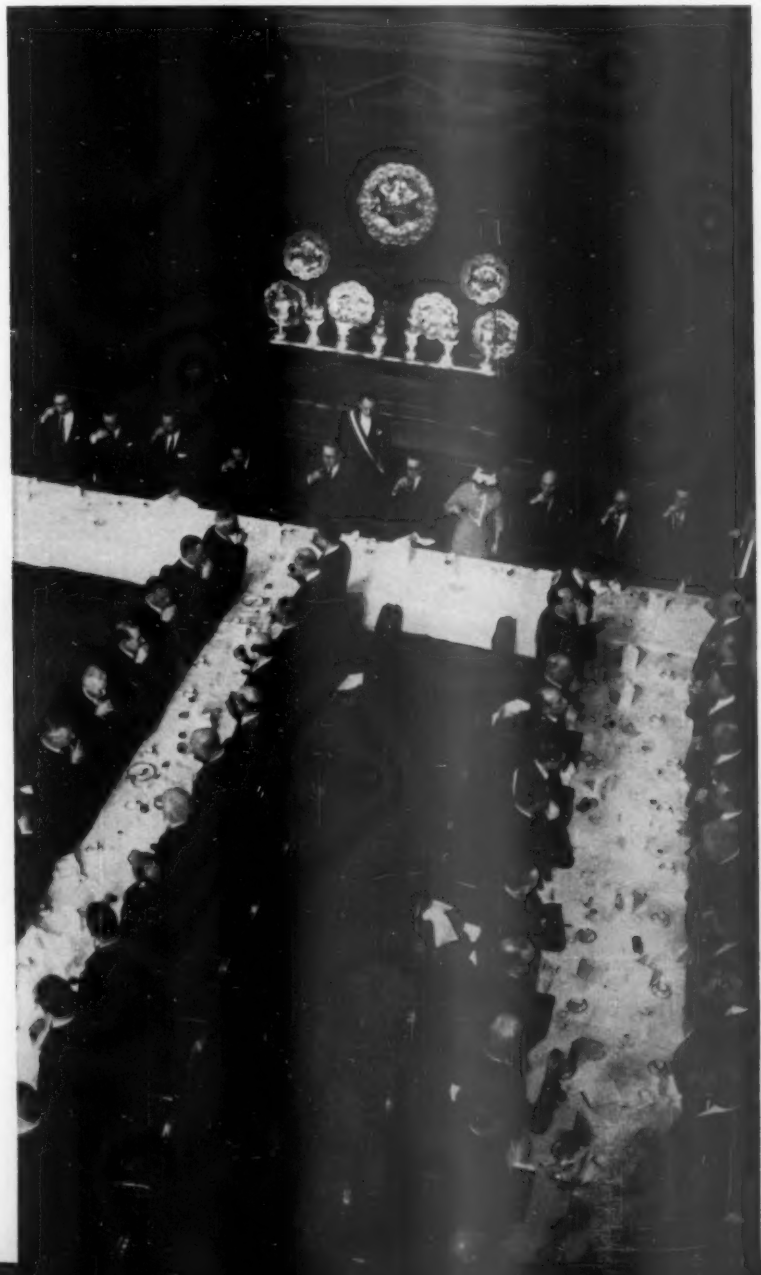
viding their own firms with new investment ideas.

• **Both Sides Learn**—Despite the festive air that marked their stay in London, the visitors learned a good deal. In fact, London's financial press, which has always found it difficult to pry information out of reticent British executives, held high hopes that "a new era of less secrecy has dawned." The London Times mixed admiration with complaint, observing that "many of the 17 British firms visited by the American security analysts seem to have been much more forthcoming to the analysts than they have ever been before, either to British investment advisers or their own shareholders."

Even so, the Americans did not come away with any secrets. According to one of the visiting firemen, all they got out of one company on their list was it was doing "better than expected."

London has its own group of security analysts, but they are regarded by both corporations and stock brokers as just a step removed from statistical clerks. This was a surprise to the visitors, but also to their hosts. Some corporations, taken aback when they discovered that the New York analysts had so much status among financial men, hastily revised their programs to give them a warm welcome. In general, the New York visitors were impressed with the growth potential of British firms, and they thought that the new budget cuts would help to stimulate both sales and production.

• **Different Ways**—Many of the Ameri-



IN LONDON DRIZZLE, New Yorkers follow the leader from luncheon at Grocers Hall to tea at brokers, Phillips & Drew.

COCKTAILS at Drapers Hall preceded the luncheon at Grocers Hall. The analysts had already visited the London exchange.

LUNCHEON at Grocers Hall was addressed by Sir Oscar Hobson, city—or financial—editor of the News Chronicle.

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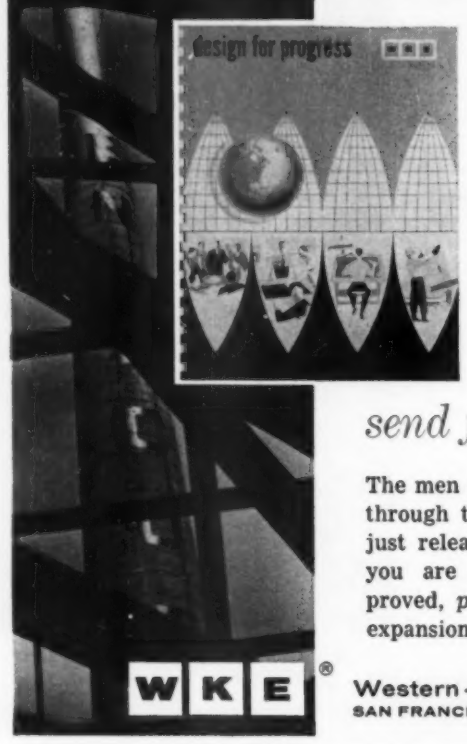

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RALPH H. ROTNEM, president of the New York Society of Security Analysts (left), chats over a drink with Sir John Braithwaite, chairman of London exchange.

cans found that British companies offer some interesting investment possibilities. But they doubt that they will be able to get as much information as U.S. corporations provide, and they found that some, at least, were not exactly eager to have their shares in American hands.

The visitors also discovered that quite a bit more than a five-hour time differential separates the New York and London exchanges. They found that London's exchange operates much more leisurely and excites considerably less public interest.

In many ways, the London market is more of a professional market than any American exchange. Brokers do no advertising, have no elaborate boardrooms, and consider themselves the equivalent of a doctor or lawyer. Instead of tape, they maintain chalked scoreboards, but they admit they "can get a price from New York faster than from across the road." Transactions—called "bargains" in London—are made between jobbers, who are equivalent to Wall Street's specialists.

Unlike the U.S. exchanges, London permits after-hours trading and does not demand reports of all bargains made. Thus, the daily quotation list is an approximation, not an accurate record.

• **Attractive Yields**—Despite these drawbacks, the security analysts came away with the expectation that American trading in English securities should increase.

Most British corporations sell at fairly low price-earnings ratios and pay higher dividends than U.S. investors are now getting. As one analyst summed it up, "They may not answer all your questions, but you can't argue with the yields they provide." END

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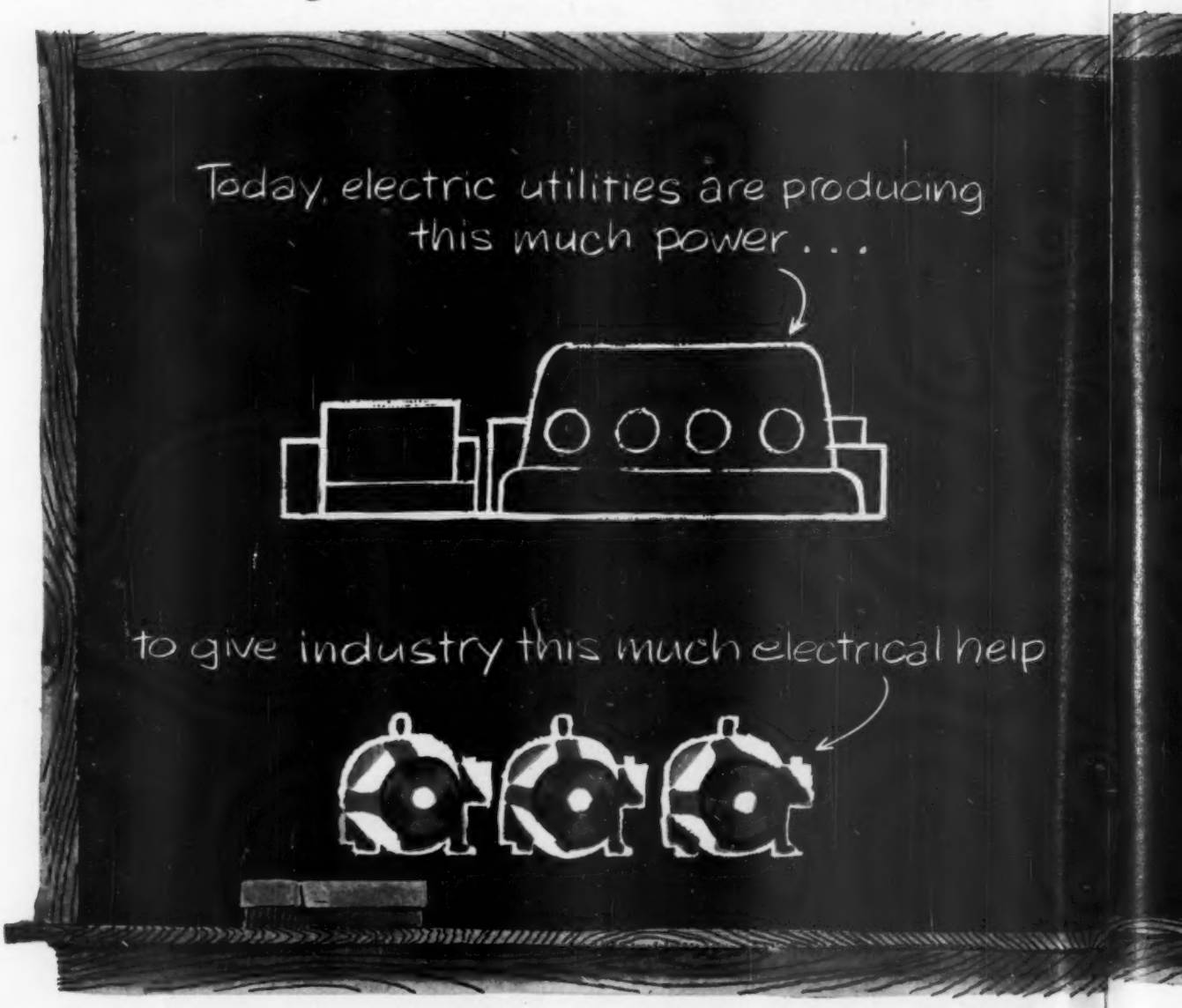

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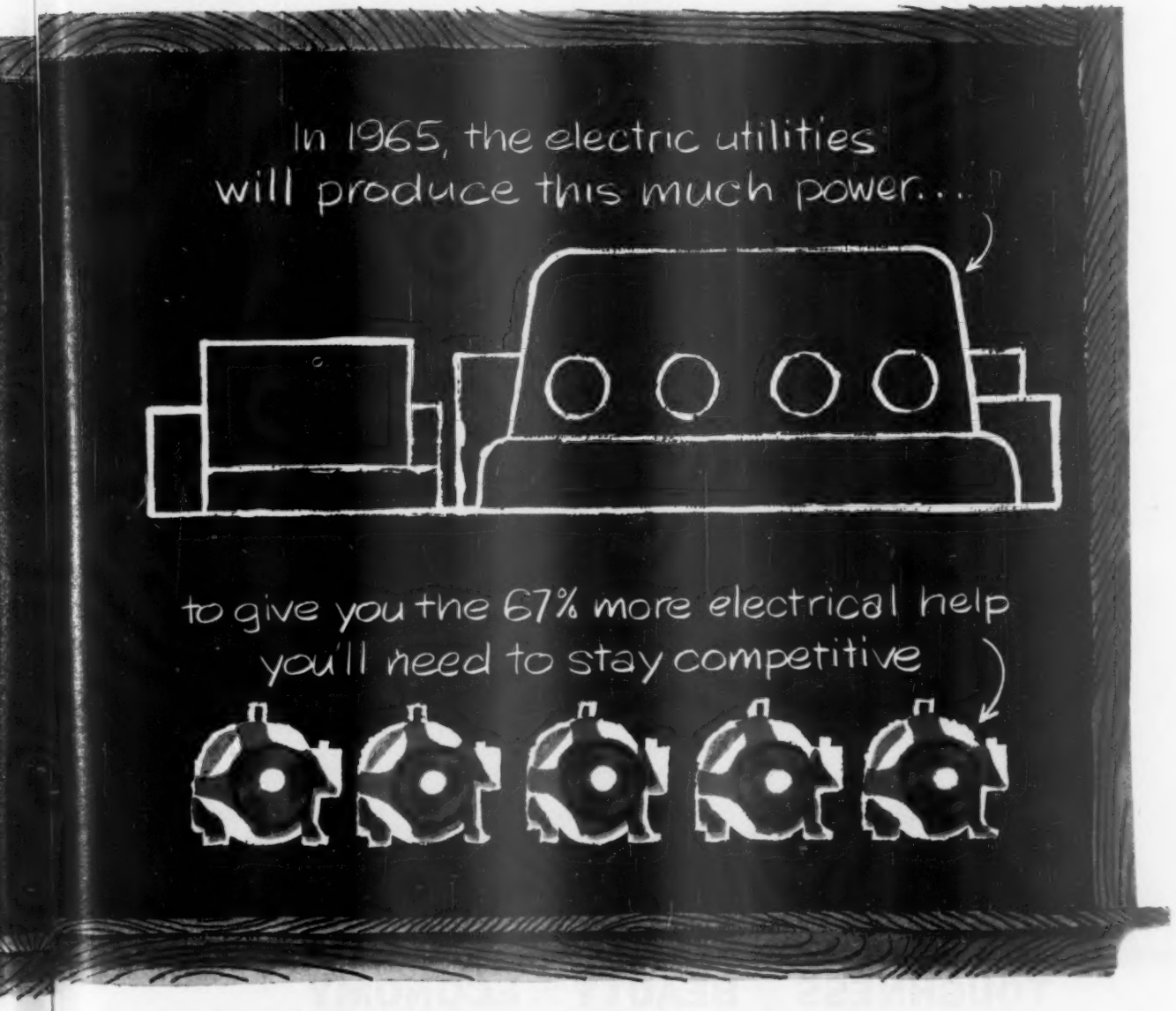
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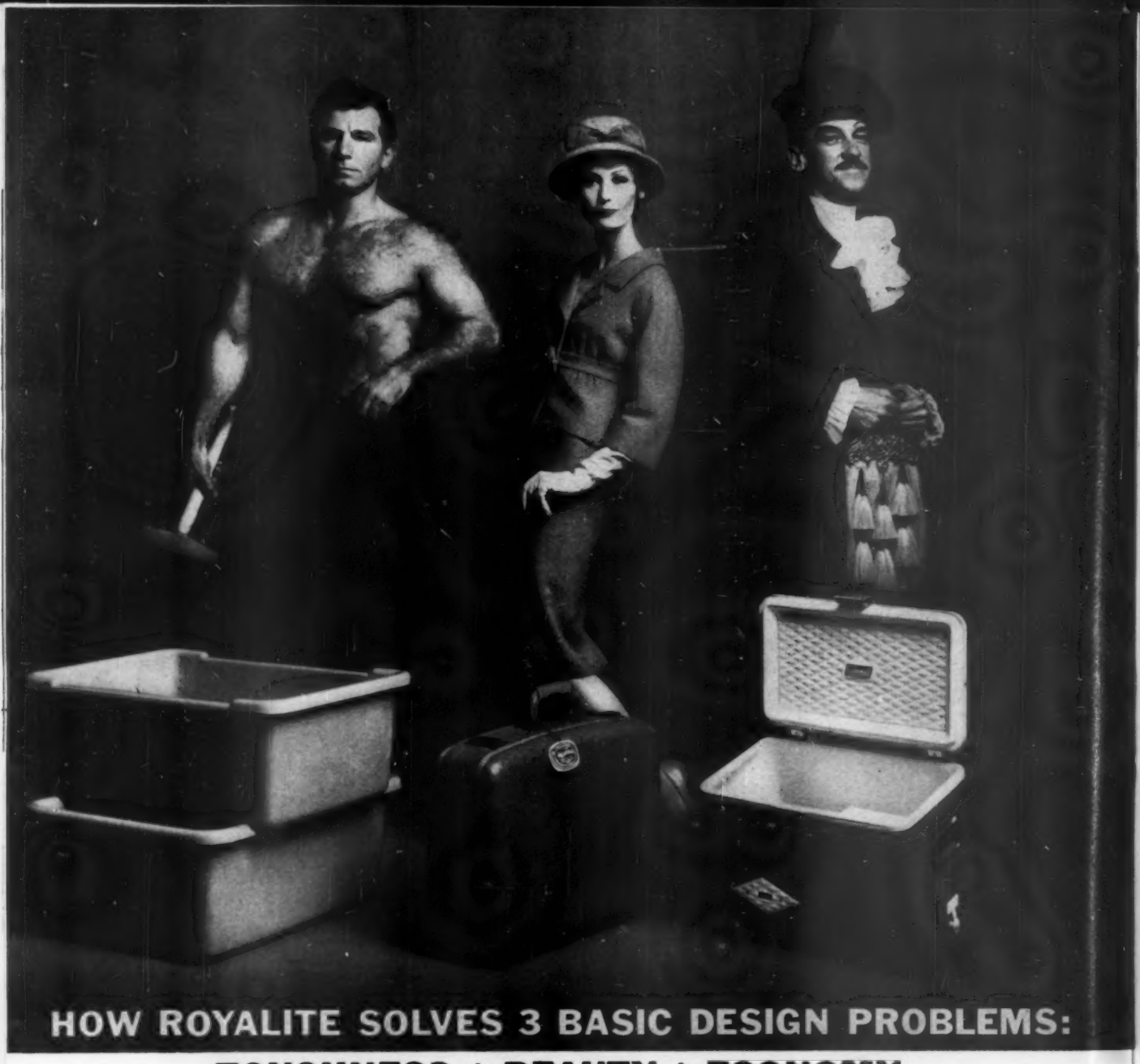

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1958's Biggest Earners

NET PROFITS AFTER TAX IN MILLIONS

	FISCAL 1958	Rank	FISCAL 1957	Rank	% change 1958 vs 1957
American Tel. & Tel.*	$952.3	1	$829.8	1	+ 14.8%
General Motors	633.6	2	823.8****	2	− 23.1
Standard Oil (N.J.)	562.5	3	805.2	3	− 30.1
E. I. duPont de Nemours	341.2	4	396.6	5	− 14.0
Gulf Oil	329.5	5	354.3	6	− 7.0
Texaco	310.2	6	332.3	7	− 6.7
U. S. Steel	301.6	7	419.4	4	− 28.1
Standard Oil (Calif.)	257.8	8	288.2	8	− 10.6
General Electric	242.9	9	247.9	10	− 2.0
Sears, Roebuck & Co.	165.8	10	161.1	13	+ 2.9
Socony Mobil Oil	156.8	11	220.4	11	− 28.9
Bethlehem Steel	137.7	12	191.0	12	− 27.9
Intl. Bus. Machines	126.3	13	89.3	20	+ 41.4
Union Carbide	124.9	14	133.7	16	− 6.6
Standard Oil (Ind.)	117.8	15	151.8	14	− 22.4
Shell Oil	116.6	16	135.1	15	− 13.7
Eastman Kodak	98.9	17	98.1	18	+ 0.8
Ford Motor	95.7	18	282.8	9	− 66.2
Western Electric	85.9	19	84.6	**	+ 1.5
Pacific Gas & Electric	85.3	20	76.6	26	+ 11.4
Phillips Petroleum	84.2	21	96.2	19	− 12.5
R. J. Reynolds Tobacco	78.3	22	64.2	32	+ 22.0
Union Pacific	77.8	23	78.2	25	− 0.5
Westinghouse Electric	74.8	24	72.7	27	+ 2.9
Procter & Gamble	73.2	25	67.8	29	+ 8.0
International Paper	72.0	26	79.4	24	− 9.3
Atchison Topeka & S. F.	67.2	27	61.9	33	+ 8.6
Commonwealth Edison	66.9	28	53.9	43	+ 24.1
Goodyear Tire & Rubber	65.7	29	64.8	31	+ 1.4
Consolidated Edison	65.4	30	56.7	39	+ 15.3
Republic Steel	61.9	31	85.0	21	− 27.2
Kennecott Copper	60.1	32	79.3	23	− 24.2
American Tobacco	58.8	33	57.1	37	+ 3.0
Firestone Tire & Rubber	53.8	34	61.7	34	− 12.8
Chesapeake & Ohio	51.7	35	67.6	30	− 23.5
Great A. & P. Tea	51.6***	36	50.6	**	+ 2.0
General Telephone	50.8	37	45.7	**	+ 11.2
Weyerhauser Timber	49.6	38	53.4	42	− 7.1
Sinclair Oil	49.5	39	79.3	22	− 37.6
Cities Service	48.4	40	63.4	38	− 23.7

*Not including Western Electric. **Not in 1957 list.
***BW estimate. ****Excluding a non-recurring transfer to profit and loss.

©BUSINESS WEEK

AT&T Extends Its Lead

Biggest money maker pulls farther ahead as recession knocks some famous names off the list of $50-million plus earners.

The American Telephone & Telegraph Co., which took first place as the No. 1 money maker among U.S. corporations by no more than a nose in 1957, moved out into a commanding lead last year.

While most of the top earners among the nation's nonfinancial corporations took a shellacking because of the recession, Mother Bell forged ahead, increasing profits by almost 15%, which gave it an opportunity to increase its dividend for the first time since 1922.

The severe attrition in earnings during 1958 showed most in the autos, steels, and oils. Every one of the top steel companies made less during 1958 than in 1957; the same was true for most of the major oil producers. But the Big Three auto companies, though they were helped by a strong surge in profits during the fourth quarter, showed the sharpest cutbacks.

• **Off the List**—Chrysler Corp., which ranked 17th last year with $119-million in net profits, dropped off the list completely, racking up a loss of $33.8-million. This was the first year since the depression low of 1933 that Chrysler has registered a loss.

The over-all earnings cutback reduced the select membership of the $50-million plus club. Last year marked the second year in a row that the number of companies with net profits of $50-million or more showed a decline. In 1956, there were 48 such companies, in 1957 there were 46, while last year there were only 37. There should be a reversal of this trend in 1959, however. First-quarter reports, now drifting in, show big jumps in profits all down the line.

Some notable names are now off the list. Among former members which failed to make the grade in 1958 were Sinclair Oil, Aluminum Co. of America, Inland Steel, Pittsburgh Plate Glass, Cities Service, National Lead, Armco Steel, Weyerhaeuser Timber, Dow Chemical, United Aircraft, American Cyanamid and Chrysler.

There was only one newcomer on the select list—General Telephone, the nation's No. 2 telephone company. It boosted its net earnings by over 11% and made its debut as a junior member of the club with $50.8-million in after-tax profits. But in 1959, General Telephone should be able to win permanent status much higher up, mainly because of its merger with Sylvania, which took effect last month. (The two other new companies on the list, Western Electric and A&P, had both earned more than $50-million in previous years.)

• **Defensive**—The corporations that were able to stem the tide and better their 1957 performances were primarily those in defensive, recession-proof consumer goods industries. The top retail chains, such as Sears, Roebuck and Great Atlantic & Pacific Tea Co., moved up despite the fact that the majority of retailers lost ground in 1958 (BW—Apr.11'59,p45).

Similarly, utility companies, led by giant Pacific Gas & Electric continued their steady long-term growth, showing few recession scars. The big tobacco companies, having weathered the cancer-scare storm successfully, moved up strongly. R. J. Reynolds, for example, lifted its net 22%, jumping from 32nd to 22nd among the big money makers.

But the star performer among the giants was IBM. Riding high on the wave of computer technology, IBM boosted its net over 41%, more than any other company in the top 40, and climbed to 13th position in the profit hierachy. Only two years ago, IBM ranked 29th. **END**

In Finance

• • •

Eaton, Daley Score in Tax Case Over Profits in Canadian Companies

Cleveland financiers Cyrus S. Eaton and William R. Daley this week appeared to have won final victory in their long battle with the Internal Revenue Service. IRS claimed they owed $4.6-million in taxes and penalties because of their part in a stock deal between Consolidated Premium Iron Ores, Ltd., and Steep Rock Iron Mines, Ltd., both Canadian companies. In 1957 the U.S. Tax Court had found for Eaton and Daley, (BW–June1'59,p79), but the government appealed. It wasn't until last week that the Court of Appeals handed down its decision affirming the Tax Court.

The case involved a dispute over whether a company licensed to do business in the U.S., with offices here, is liable for U.S. taxes even if no business is actually conducted. If the decision had gone the other way, it might have put a serious crimp on two types of businesses:

- Independent companies in Canada with some U.S. contracts.
- Wholly Canadian subsidiaries of U.S. companies, with liaison offices in the U.S. but doing no business here.

IRS claimed that Premium—a sales, research, and finance subsidiary of Steep Rock—had a permanent U.S. establishment because of a license to operate in Ohio and a letterhead showing the same address as Otis & Co., Eaton's outfit in Cleveland. Therefore, it said, tax was due on the profit in a deal in which Premium got 1.4-million shares of Steep Rock at 1¢ a share at a time when Steep Rock was selling for $1.67 in the market. Failing that, it wanted to tax Premium as a U.S. corporation.

The court ruled no, on both counts. It said Premium had no "permanent establishment and was not taxable" since it did no business in the U.S. and eventually gave up its Ohio license.

• • •

Broker Plays Down Interbank Loans; Bank Finds Them Good Business

Mabon & Co., a member firm of the New York Stock Exchange which last fall ventured into the business of arranging interbank loans on federal funds—member bank deposits at the Federal Reserve (BW–Nov.8'58, p125)—this week revealed that it has found the service "unprofitable" and is "de-emphasizing" it. Joseph C. Nugent, a Mabon partner, indicated that the firm is still willing to act as funds broker but, he added, "We're not going after the business."

Mabon's experience contrasts with that of the Irving Trust Co., which announced shortly after Mabon that it would act as a funds broker (BW–Dec.13'58,p105). Irving says that banks are using its services in very satisfactory numbers (banks borrow federal funds to make up temporary reserve deficiencies, lend them in order to put surplus funds to work). "We're in this business to stay," said one Irving vice-president.

• • •

"Fair Value" Rate Base Called Essential to Realistic Utility Prices

In order to maintain their position in a period of spiraling inflation, utilities must make greater use of the "fair value" rate base in setting prices for the services they provide, Robert S. Quig rate expert for Ebasco Services said this week. Ebasco acts as a financial and engineering consultant to the utility industry.

Quig said that the fair value approach—**which balances low original property costs against higher current value costs**—is a necessity if utilities are to get "just and reasonable" compensation for their property. He added that most rate structures used by utilities were developed before the severe postwar inflation. Utility regulatory commissions, he said, must give consideration to the fair value rate base if customers are to continue to receive adequate service at reasonable rates.

• • •

Finance Briefs

"In-plant" banking service, pioneered by the Bank of America in California to compete with the surging growth of credit unions (BW–Dec.20'58,p55), has won a new fan in the East. This week, Pittsburgh's Mellon National Bank, 11th largest in the nation, announced a program that will allow employees in the Pittsburgh area to do substantially all their banking without ever leaving work. The plan is open to organizations of every size; the employer has only to designate one employee to provide forms for checking or savings accounts, personal or home improvement loans. Transactions are then completed by mail.

Johnson & Johnson, the nation's largest manufacturer of surgical dressings, said this week that **it may delist its shares from the New York Stock Exchange** rather than comply with NYSE's new requirement that actively operating listed companies solicit proxies from stockholders by December, 1961 (BW–Apr.11'59,p85). Robert W. Johnson, chairman, said he didn't think that it was "conducive to the welfare of Johnson & Johnson or most other companies" to disclose the information—including top executive salaries—SEC requires on a proxy statement.

Missouri's state insurance superintendent this week sustained **an 11.1% increase in automobile insurance rates**—that went into effect last December. Under state law, he could have suspended the increase, which had been protested. The action was justified, he said, because of a substantial increase in the number and cost of claims. This puts Missouri among the growing number of states where auto insurance rates have gone up recently (BW–Apr.4'59,p79).

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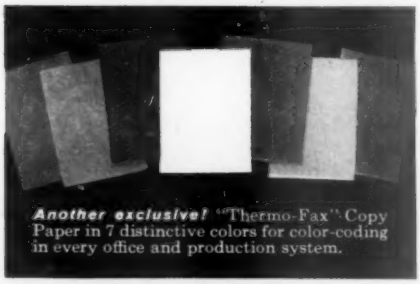

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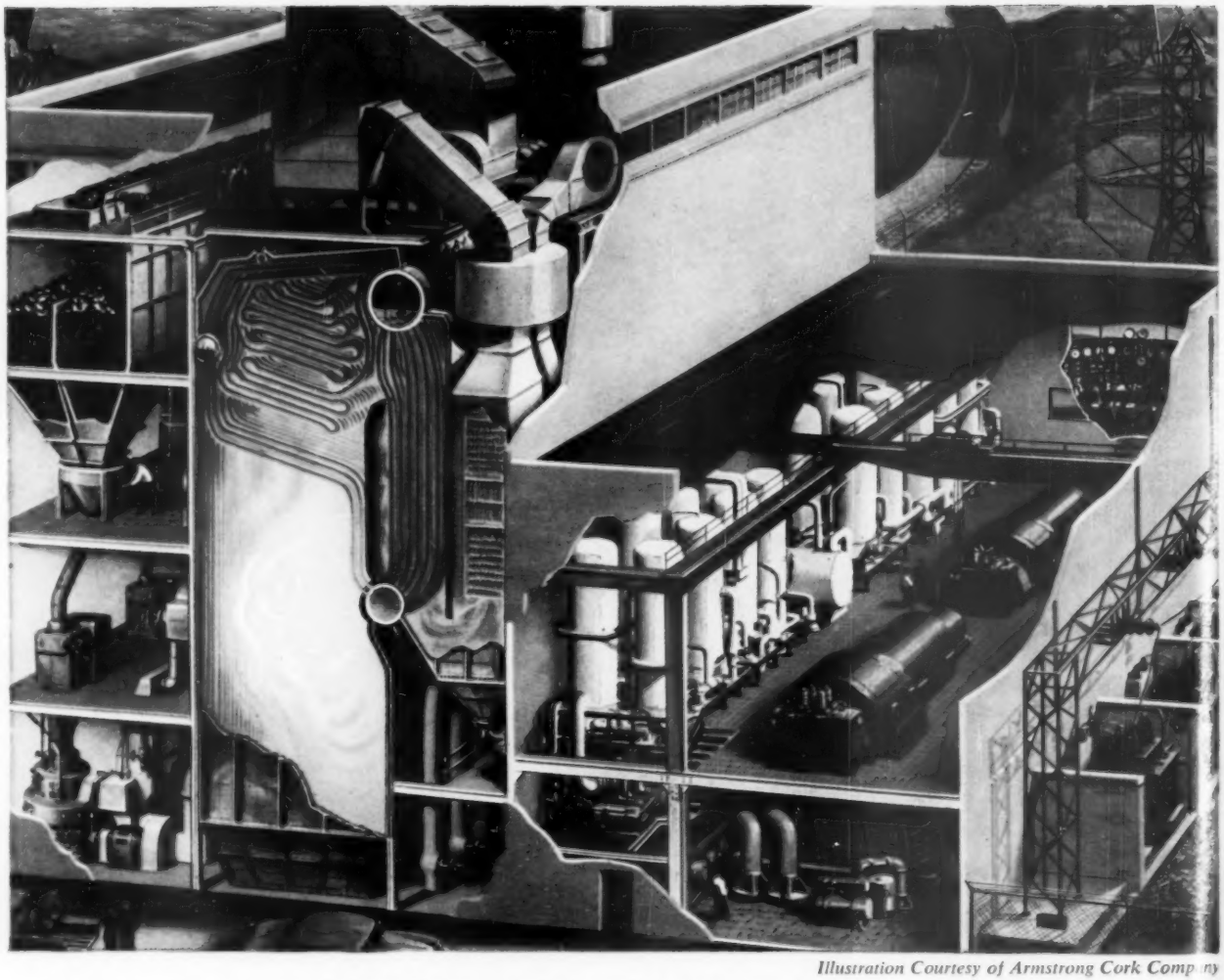

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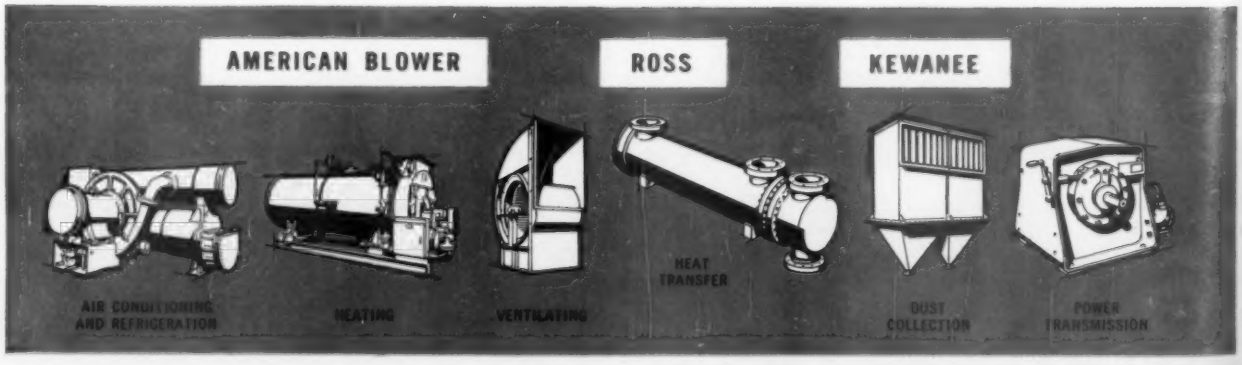

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Foam Filling May End Blowout Worry

Fire a bullet into the tire pictured at right, drill a hole into it with a 1-in. bit, cut out a 3-in. wedge with a power saw, and you can still drive away on it safely.

That's what American Latex Products Corp., Los Angeles subsidiary of Dayton Rubber Co., has found in experiments on what it hopes will be the ultimate in blowout-proof tires. The tire casing is filled with "polyrubber," a flexible polyurethane material, instead of air. The foam rubber filler can be bonded to the casing without using pressure equipment.

Torrance (Calif.) police fired soft-nosed magnum bullets into the tire in one test, and mechanics drilled and cut it for further mutilation. The car on which the tire was mounted was then driven over roads of both pavement and aggregate without noticeable loss of stability or riding comfort, according to American Latex. The polyrubber retained its "foamed in place" position throughout.

The experiments are being conducted on the grounds of another Dayton subsidiary, Freedlander Research & Development Center, Hawthorne, Calif.

Find Your Height in Half the Time

For safety, a pilot must know exactly how high his plane is flying. Bulova Watch Co. thinks it can provide him with a more accurate, quicker answer with a new altimeter demonstrated last week by Gen. of the Army Omar N. Bradley, Bulova's board chairman (picture, right).

Gen. Bradley says tests show that the Bulova altimeter deviates only 20 ft., plus or minus, at an altitude of 12,000 ft., compared with 200-ft. errors possible with conventional altimeters. Other tests indicate it takes 3.4 seconds to read the new altimeter, against 7.3 seconds for conventional devices.

Conventional altimeters show altitude on a dial face with three pointers for different ranges such as tens of thousands, thousands, and hundreds of feet. These pointers are moved mechanically by aneroid capsules—metal envelopes containing a vacuum—which sense height by reacting to changes in air pressure. Some newer altimeters record their findings on the face of a revolving drum.

• **Tape Readings**—The Bulova altimeter is easier to read. It has a 40-ft. long tape on which heights from minus 1,000 ft. to 65,000 ft. or higher are laid out on a logarithmic scale. The tape moves past a window; readings are in straight numbers like "1,000" or "11,500"; there is no need to coordinate readings to know your height.

Greater accuracy and sensitivity are provided by a different type of sensor—its movements are transferred to the tape electrically instead of mechanically. The sensors are Melchior capsules, made of a nickel alloy instead of the usual beryllium-copper. By expanding or contracting, they move an armature through coils with two windings, like a transformer. One winding receives 400-cycle alternating current; the other puts out a voltage that varies with the armature position and is amplified to a servo motor, which moves the tape. This eliminates friction and indicator sticking. Bulova recommends installing a conventional altimeter in case a power failure knocks out the new one in an emergency.

Tests of the device have been conducted in a variety of planes, from a twin-engine Beech 18 to an F-104 jet interceptor. The Air Force recently ordered 25, and an aircraft manufacturer is expected to order 10 more. The altimeter will cost about $3,000 in early production, about three times as much as conventional ones.

Simpler Way for Stacking Up Containers

A comparatively simple new pallet loader promises to make a dent in materials handling costs. Made by Lathrop-Paulson Co., Chicago, it's intended for high-speed production lines in canning, milk, food processing, and packaging industries and will handle cases, cartons, kegs, and other containers.

The new machine, which runs without an operator, takes containers coming off a line and stacks them from the bottom, moving each case up so a new one can fit underneath it. A conveyor moves a stack at a time into position in front of a pusher, which then drives it onto the pallet. When the pallet has a full load of stacks, an overhead taper applies pressure-sensitive tape to the top layer of containers on the pallet to hold them in place. Stacker, pusher, taper, and conveyor are synchronized to keep the flow continuous.

Containers are stacked "straight-back," directly on top of each other with corners touching. The tape strengthens the stack. The manufacturer claims this offers substantial savings by eliminating waste space, crushing, calculation time, and set-ups that go with pattern stacking.

Lathrop-Paulson says its machine can do the work of competitive units that take twice the floor space and twice the height—at half the price. The new pallet loader costs $7,500 with the taper and $5,500 without; conveyor systems are designed to meet individual needs. **END**

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Chicago	WH 4-3220	Lynn, Mass.	EN 5556	St. Petersburg	7-2790	Winnipeg, Canada	WH 3-4457
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RESEARCH

A Step Toward Artificial Life

Production of co-enzyme A in the lab gives researchers a key that might some day lead to making living matter.

Numerous and varied research developments were reported during the sessions of the American Chemical Society's 135th annual meeting in Boston last week (BW—Apr.11'59,p36). The developments, as they generally do, tended to fall into two broad categories:

• Those with an obvious and immediate practical application. Such a one, reported at Boston, was that it will soon be possible to produce on a commercial scale a paint that works like the scales of a fish to keep out water. Famous examples of the same type of developments in the scientific past that had an immediate practical application were the invention of nylon by Carothers, and the synthesis of penicillin by Fleming.

• Those that seem to present no immediate interest except to the scientists, but whose ultimate significance may be immense for business and the public. A prime example of this type could be the announcement made in Boston that two biochemists at the University of British Columbia, Dr. John G. Moffatt (picture) and Dr. H. Gobind Khorana, have been able to produce in a test tube the complicated molecule called co-enzyme A. Their triumph came after seven years of work backed by the Life Insurance Medical Research Fund of New York and the National Council of Canada.

Co-enzyme A is a complex bundling together of atoms of carbon, oxygen, hydrogen, nitrogen, sulphur, and phosphorous. It's of intense interest to the biochemist because of its chore, in the human body, of converting food into substances that can be used by the individual cell. And it sets into action the carboxylic acid that has a prominent intermediate role in metabolism.

• **Nobel Prize**—The original discovery of co-enzyme A won a 1953 Nobel Prize for Dr. Fritz Lipmann, of the Rockefeller Institute. Lipmann, a specialist in the metabolic functions of B vitamins, went on to explain the catalytic function of co-enzyme A in the operation of the cell—basis structure in all living matter.

Efforts by other researchers to push deeper into the mysteries of cell function have been hampered by the high cost of co-enzyme A. At the very best, it costs close to $20,000 to extract an ounce of it in its natural form from yeast. At this extremely high price, harsh economics shut down on certain types of experiments into the basic processes of life.

That's what lends such importance to the Moffatt-Khorana discovery that co-enzyme A can be produced relatively cheaply from common chemicals. There has been little progress toward the synthetic reproduction of a living cell in the test tube; for centuries scientific imagination has been turned rather on the functioning of the cell. Much has been learned about how the cell operates, why it acts as it does, what it is made up of. But this effort has been somewhat at the expense of snythesizing the cell or—what is even more important medically—any of its parts.

• **Cell Chemistry**—Now the availability of co-enzyme A as a research wedge should lead to deep penetration of cell chemistry. The range of possibilities that this implies is immense; virus infections and cancer could be primary studies. It is already known that most chemical changes in cells are caused by enzymes, of which co-enzyme A is just one. However, the active part of many enzymes is its detachable molecule of co-enzyme A.

The ultimate possibility is, of course, that the synthesis of co-enzyme A might someday lead to total synthesis of living matter.

• **Other Developments**—The production of co-enzyme A was not the only fundamental research development that was reported to the ACS delegates in Boston. One of them brought, along with graver scientific promises, some hope that liquor could be divested of the factors that cause common hangovers.

This boon to mankind lies in the use of a technique called gas chromatography to analyze in minute detail the elements that give liquor its flavor and aroma.

For years, chemists have known that iso-amyl alcohol (fusel oil) and acetaldehyde were the causative fiends of hangovers. But attempts to get rid of them in fermented liquors have not been feasible economically or esthetically. The catch has been that the two culprits, along with a dozen other "contaminants," constitute only ¼ of 1% by volume in most liquor.

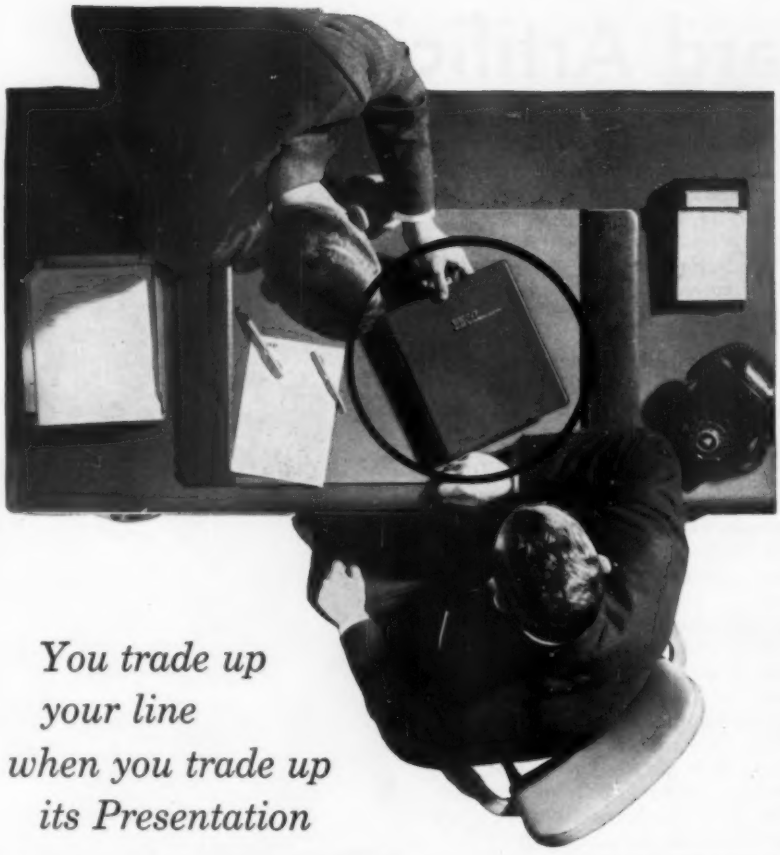
The contaminants could be removed in the lab, but as the maleficient isoamyl alcohol and acetaldehyde went down the drain, so did all the bouquet and taste of the liquor.

• **Synthetic Liquor**—Gas chromatography should bring an end to this frustration, by making possible synthetic liquor from which the hangover has been omitted while the aroma and taste are triumphantly retained. As an added boon, the liquor producer would escape the formidable expense of "aging" his product.

DR. JOHN G. MOFFATT is co-discoverer of how to synthesize co-enzyme A.

Dr. Robert E. Carroll, a chemical consultant, and Lawrence C. O'Brien, of the Perkin-Elmer Corp., were instrumental in applying new gas chromatographic methods to the chemical analyses of liquors. Gas chromatography is put into operation by vaporizing a sample of liquid and separating out its components on a basis of molecular weight.

Physicians as well as drinkers may find long-range possibilities in gas chromatography analyses of liquor, too. They could serve as the key tool in work on both ulcers and cancer of the stomach, as well as in study of the operation of the brain and of chronic alcoholism. It is already known that isoamyl alcohol and acetaldehyde cause



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specific changes in the chemistry and operation of the brain.

• **Weather, Too**—Marked improvement in long-range weather forecasting can be expected by business and industry as a result of the launching of some future earth satellites. That's the promise of Dr. Lewis D. Kaplan, of MIT's Meteorology Dept., who predicts new vision for the weatherman once a satellite has been launched to record the infra-red radiation that is reflected back from the earth to the top of the earth's atmosphere.

Data on the earth-reflected radiation, taken at different points, will bring much greater understanding of the circulation of the earth's atmosphere, and will give the forecaster a running account of temperatures, pressures, and moisture in the earth's atmosphere.

• **Difficulties**—To do this job, a satellite would need instruments that would strain, but not exceed, current scientific capacities. The payload of the weather eye would have to be much heavier than any that the U.S. has yet put aloft, and the satellite would need a "stable" orbit—maintaining a constant orientation relative to the earth's surface.

Equipment would be needed to measure thermal radiation at many different frequencies, and to check the count of carbon dioxide and water vapor. The instrument to do the job would probably be a high-resolution spectrometer, which separates radiation frequencies much as raindrops separate the colors of sunlight to form a rainbow.

• **High Temperatures**—The vast possibilities of intensified research in high temperatures was sketched for the 8,000-odd ACS members. Dr. Aristid V. Grosse, president of the Research Institute at Temple University, pointed out that it is quite impossible to predict accurately all the areas that will be opened to scientists once they are able to create laboratory temperatures in the range of 10,000F to 60,000F. Today, researchers simply do not know what happens in chemical and physical reactions above 5,000F. If lab temperatures from twice to 12 times hotter than that could be achieved, it would certainly mean the creation of new fuels, new rocket propellants, and new materials, all able to withstand tremendous heat and pressure.

The products would come immediately, and not far behind them would probably appear a whole new family of synthetic chemicals.

What's needed at the moment is serious study of how to achieve such "hellfire" heats. The high temperatures that can now be had in the lab are produced by furnaces that focus the sun's rays, by some rocket motors, and by streams of gases (called plasma jets) formed by electric arcs. **END**

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• ***Builders of nuclear reactors*** are being provided with higher boron content stainless steels that, surprisingly, are easier to work.

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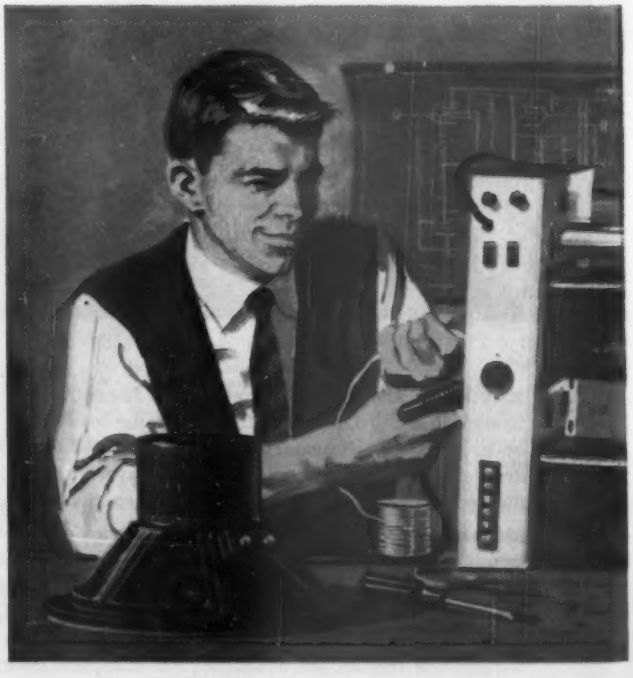

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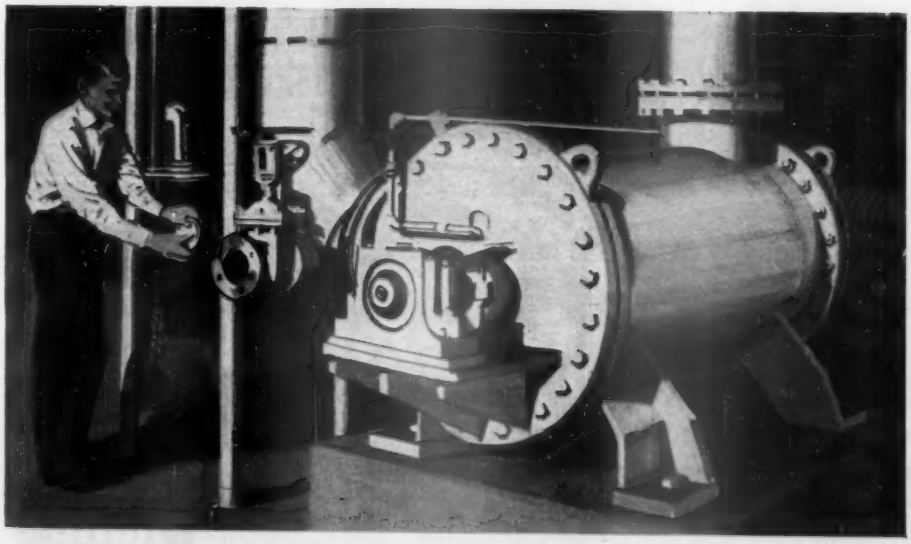

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■ 9%-12%
● over 12%

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INDIANA	Evansville	★	■	★	★	■	★	★				■	★	■	■	■	■	■	★	■	■
	South Bend		★	★	★	■								■	●	●	●	●	★	★	★
	Terre Haute	●	●	●	■	■	■	★	★	★	■	★	★	■	■	★	★	★	★	■	★
MASSACHUSETTS	Fall River			★	★	★		■	■	●	●	★	★	■	●	●	●	★	★	■	★
	Lawrence	●	●	■	■	★	★	■	■	■	■	★	★	■	■	■	■	■	■	■	■
	Lowell	★	★	★	★	★	★	■	★	★	★		★	■	●	■	■	★	■	■	■
	New Bedford	★	★	★	★			★	★		★			■	●	●	●	■	■	●	■
MICHIGAN	Detroit		★	★	■	●			★	★	★	■	★	●	●	●	●	●	●	●	●
	Flint			★	■	■				■	●	●			●	●	●	●	★	★	★
	Grand Rapids								★	★	★	★	★	■	●	●	●	■	■	■	■
	Lansing			★	★	★					★	★		★	★	■	●	■	★		★
	Muskegon				★	★	★	★	★	★	■	■	■	■	●	●	●	●	●	■	●
MINNESOTA	Duluth-Superior	★	★					★						■	●	●	■	★	■	●	■
MISSOURI	Kansas City	★	★	★	★	★								★	★	★	★	★		★	★
NEW JERSEY	Atlantic City	●	●	★			■	●	●	★			■	●	●	■	★	★	●	●	■
	Trenton	★			★			★	★					■	■	■	■	★	★	★	★
NEW YORK	Utica-Rome	★	★					★	★				★	■	●	■	■	★	■	■	■
NORTH CAROLINA	Asheville	★	★	★	★	★		★	★		★	★	★	★	■	★	★	★	★	★	★
	Durham	★	★	★	★			★	★	★	★		★	★	■	■	■	★		★	★
OREGON	Portland	★	★					★	★				★	■	■	★	★		★	★	★
PENNSYLVANIA	Altoona	★	★	★	●	■	★	■	■	■	■	■	■	●	●	●	●	●	●	●	●
	Erie	★	★					★	★				★	●	●	●	●	●	●	●	●
	Johnstown	★	★	★	●	★	★	★	★	★	★	★	★	■	●	●	●	●	●	●	●
	Scranton	●	●	■	■	■	■	■	■	■	■	■	●	●	●	●	●	●	●	●	●
	Wilkes-Barre-Hazleton	●	●	●	●	●	■	■	■	■	■	■	●	●	●	●	●	●	●	●	●
RHODE ISLAND	Providence	★	★	■	★	★	★	■	■	■	■	★	■	●	●	●	●	■	■	●	■
TENNESSEE	Chattanooga							★	★		★	★	★	★	★	★	★	★	★	★	★
	Knoxville	★	★	★	★				★	★	★	★	★	■	■	■	■	★	★	★	★
WASHINGTON	Spokane	★	★					★	★				★	■	■	★	★	★	★	■	★
	Tacoma	★	★					★	★				★	■	■	★		★	★	★	★
WEST VIRGINIA	Charleston	■	■	★	★	★	★	★	★	★	★	★	★	■	■	●	●	■	■	■	■
	Huntington-Ashland	★	★	★	★				★		★		★	■	●	●	●	●	●	●	●

Data: Senate Banking and Currency Committee, Dept. of Labor.

©BUSINESS WEEK

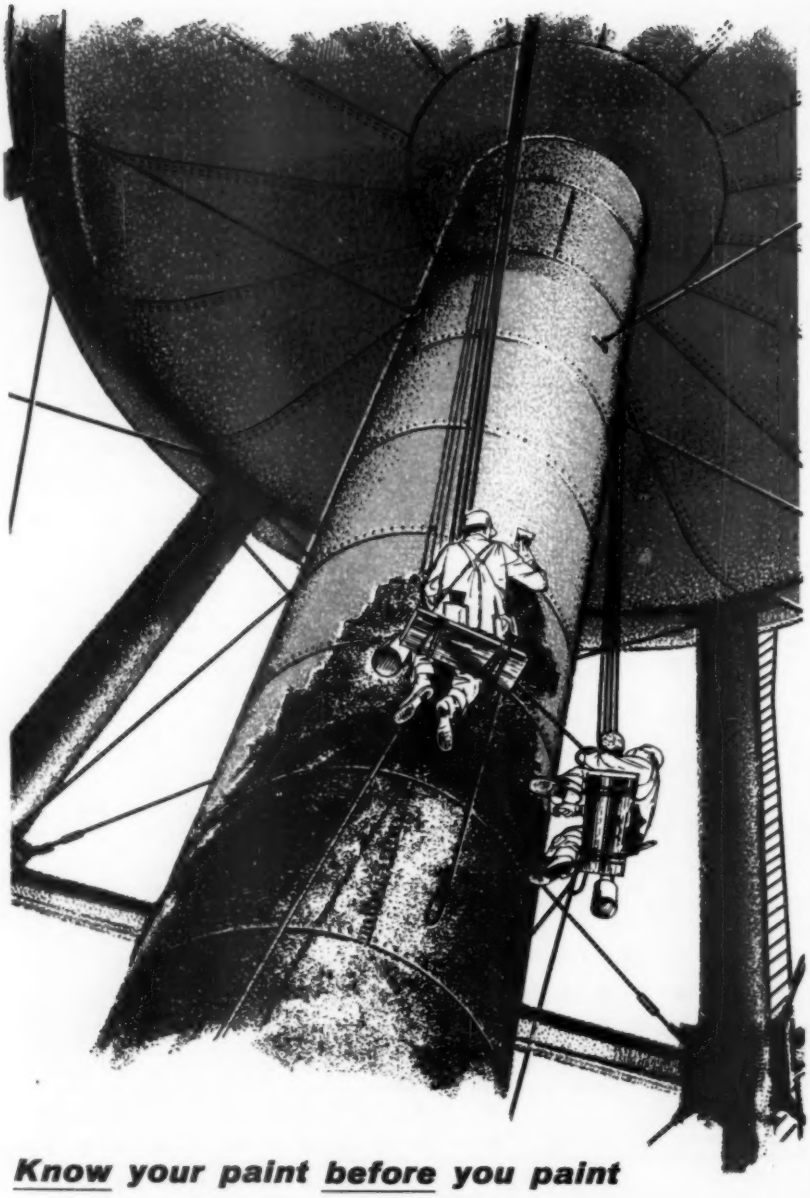
Where Unemployment Is Sorest

The national unemployment level is like the surface of a pond—it gives no hint of the gullies and potholes that might have been there before the pond was formed. At the same time, the pond can't be completely drained without taking account of these conditions and doing something about them.

As the table shows, some labor markets were suffering from unemployment before the 1957-58 recession began. And it is fair to expect them to continue to suffer after the country as a whole has recovered, for their special unemployment problems exist independently of the business cycle.

These are the city areas that are overclosely tied to one or two big employers or one or two industries that have been smitten by basic change—such as coal, where anthracite has lost most of its market, or textiles, which have moved south.

The list of 32 labor market areas in 14 states also includes cities dominated by industries whose employment cutback originally seemed temporary but seems now to be going indefinitely as in auto and machinery centers. In some of these industries technological



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changes rather than shrinking markets may be the main reason that fewer jobs are available.

• **Widening Ripples**—When a city's dominant employer shuts his plant, or an industry falters, the effects spread widely from the one or two factory payrolls to the labor force in supporting and related businesses. When the breadwinner is out of work, a family spends less on autos, clothing, restaurants, and home furnishings, perhaps even on laundry, haircuts, baked goods, and ice cream. So a host of trade and service employees is likely also to be thrown out of work.

Employers are traditionally reluctant to rehire workers as fast as they laid people off, so it takes a long time to reverse this cycle, especially for the chronic cases that antedate the recession.

• **Depressed Areas**—Thus, a city's chances for quick relief from unemployment blight depends partly on how long the condition has gone on, partly on whether it is a transient or a deeply chronic problem. Of the 149 labor market areas on which the Labor Dept. keeps tabs, 32 have had more than 6% unemployment during more than half of the last 40 months.

Not all of these are necessarily depressed areas. To say that a depressed area is one of chronic labor surplus opens up arguments about how you define "chronic." According to the criteria set up in the Senate's bill for aid to major depressed areas, 23 of the 32 would qualify for help; under the yardstick set by the Administration, only 18 would qualify.

To find out how the Labor Dept.'s 32 high-unemployment areas got into their predicament and how they're doing today, BUSINESS WEEK reporters talked to employment security agencies in the 14 affected states.

I. The Midwest

Because of the auto industry's prolonged slump, Michigan has more large cities in the distress category than any other state in the Union. But other states in the region also have spots of painful labor surplus.

Detroit, of course, is the key to Michigan's troubles, with about 220,000 unemployed in a labor force of 1.5-million. It would not be so bad if the labor force had not been increased during the Korean War by 172,000 workers, attracted from other parts of the country by an abundance of high-paying jobs.

After the Korean armistice, auto plants cut their payrolls, but the newcomers managed to ride out the brief dip before another industry boom in 1955 brought still more migrants.

The current slump is different. When car sales sagged last year, employment

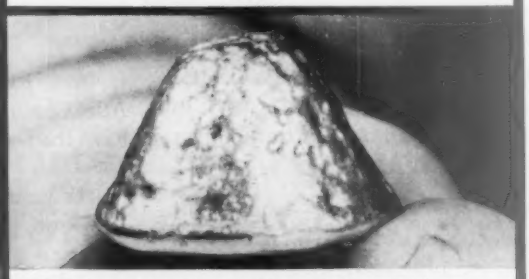
Mr. J. Leland Teets, Treasurer and Manager of the Wilkinson Company, Santa Monica, California, buys Scott Wipers because:

"The platinum, osmium and other precious metal alloys we produce for the electronic and dental industries are valued at $20 to $100 an ounce," says Mr. Teets. "We use disposable Scott Wipers to collect the shavings at the machines. The paper wipers are burned and from the ashes we recover 7 to 10 ounces a month worth up to $1,000."

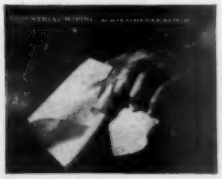
"Scott Wipers remove all traces of lint and dust from hair-thin wires and precious-metal ribbons . . . and we recover up to $1,000 on a $4.50 investment"

Here, gold foil is rolled to .0005" for semi-conductors. Scott Wipers remove all trace of dust to prevent dirt from punching holes in the foil.

Lint at the fine wire drawing operation could clog the die, shut down the machine. Scott Wipers are used to clean the revolving cones—unlike cloth, they are free of lint.



Cash from chips! This is a $320 platinum "button" refined from shavings picked up with Scott Wipers. Cost of the paper wipers averages $4.50 a month.



Illustrated 24-page booklet describes modern ways to determine wiping costs and how to control them through value analysis and programming. To receive it, mail coupon. Or call your Scott paper merchant, listed in Yellow Pages under "Paper Towels."

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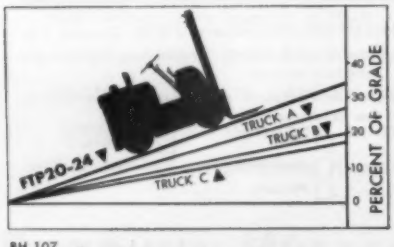

The FTP20-24 climbs a 34% grade with load.

BH-107

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at auto plants dropped an average of 79,000 a month below 1957; layoffs spread fast to suppliers of the auto industry and to the area's trade and services. With automation well advanced in the auto plants, fewer of the jobless are being recalled than in any other recovery. After using up their unemployment benefits, 45,000 workers have left Detroit's labor force, but most of the arrivals of the early 1950s remain.

Flint is even more dependent than Detroit on the fortunes of the auto industry. Unemployment last year ranged from a high of 24.2% in July to a low of 5.6% in December; it's now estimated at around 12.7%.

Grand Rapids is more diversified, with metal industries that supply construction and appliances as well as autos. At last count, the market had 3,000 fewer unemployed than a year ago, but it's still a hefty 9.8%. Since 1955, the number of local factory jobs has dropped 11%. Fortunately, the city never attracted the proportion of migrants that went to Detroit and Flint.

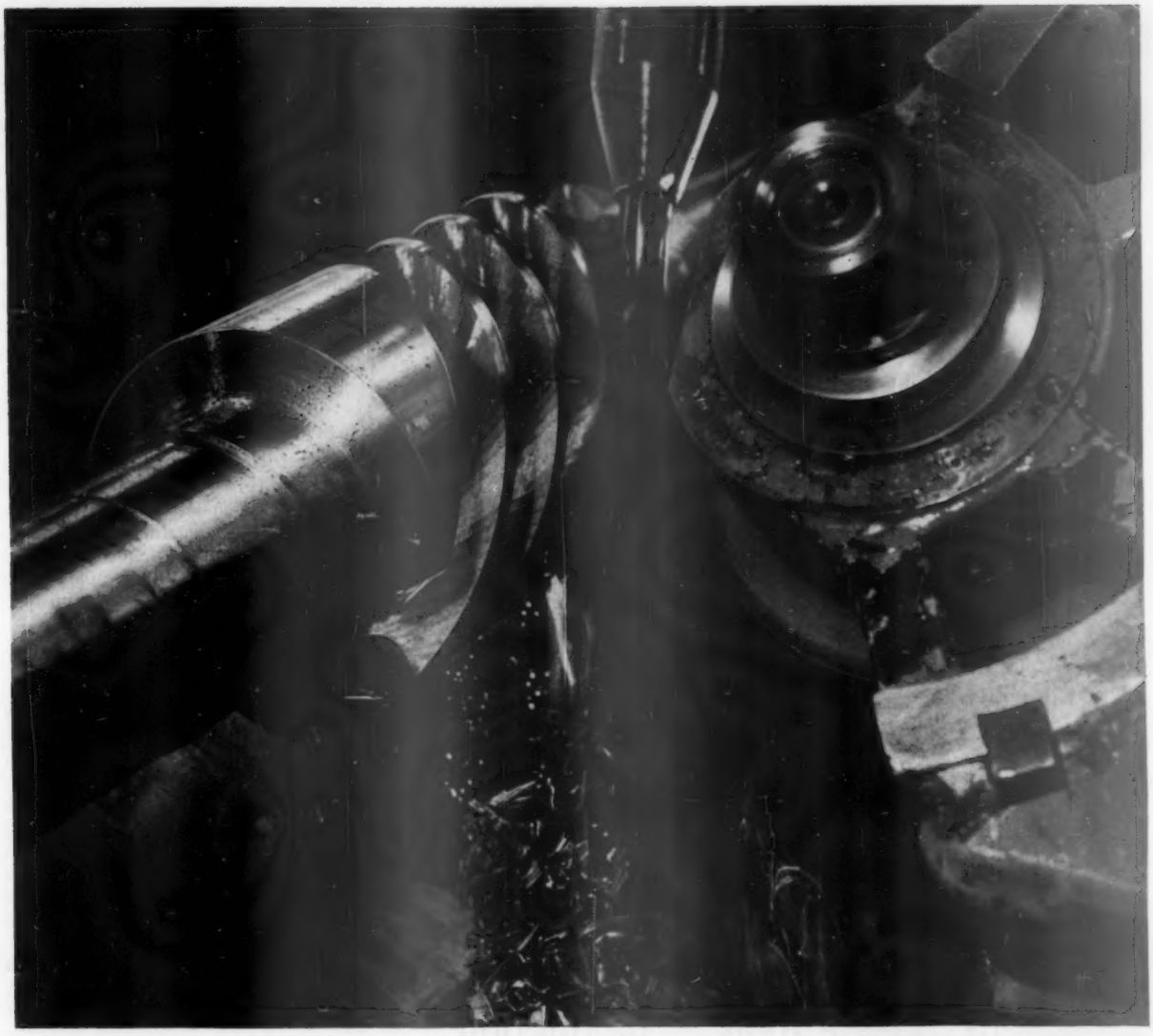
Muskegon also escaped a swelling of the labor force, but unemployment has been heavy in the foundry and machinery industries. Seasonal gains in construction and trade jobs have reduced unemployment from 13% last year to an estimated 9.9%.

Lansing has a base of nonmanufacturing employment that helps to offset auto job fluctuations. However, the auto industry—which has eliminated 5,000 jobs since 1955—sent unemployment to a peak of 18.1% last year. Seasonal gains in construction and retailing have brought it down to 5%.

Terre Haute, Ind., a labor surplus area for years, suffered from changes in bituminous coal mining and reduction of railroad employment. It has had little luck in industrial development. Because some of its industries employ few workers and others are highly seasonal, many workers commute to other areas—some as far as Indianapolis, 70 mi. away.

Evansville, on the Ohio River, suffered from the dissolution of an appliance manufacturing firm (Servel) and the decline of transportation equipment manufacture. The area faces the loss of more than 3,000 workers when Chrysler moves its local operations to St. Louis this summer. Its labor force has shrunk because housewives, older workers and younger workers have stopped job-hunting, and because many of its commuting workers are seeking work elsewhere in the country.

South Bend's employment decline is attributed almost entirely to auto assembly plants and suppliers. The labor force has declined even more than employment, because it had included many workers who commuted or moved from other areas when jobs were plenti-



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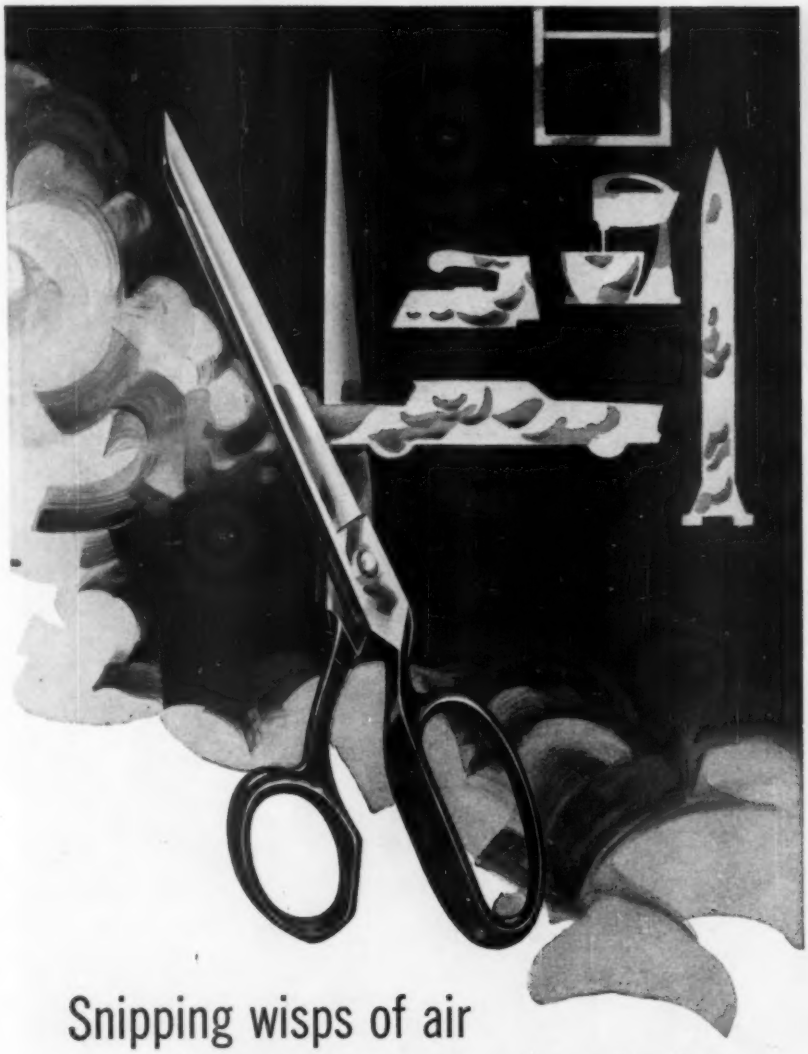

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ful. The unemployed now consist largely of unskilled and semi-skilled workers. The community's hopes ride, to a great extent, on sales of Studebaker's Lark.

Kansas City, Mo., isn't really depressed, but its unemployment has been running slightly over 6%. The labor force had expanded for the Korean buildup and, as late as 1956, there had not been enough outmigration or new industry to take up the slack left by the mobilization cutoff. The old defense plants couldn't be converted to peacetime uses. Cutbacks at auto plants and laborsaving changes in packinghouses brought Kansas City back into the surplus labor category last year, even though farm income was soaring all around it (BW—Mar.28'59,p150).

Duluth-Superior unemployment rose last year when steel production declined; it's the major U. S. iron ore port. A number of wholesaling firms and an electrical machinery concern have moved away, and the completion of taconite plants has reduced construction work.

II. The Northeast

Pennsylvania and Massachusetts have the largest number of surplus labor markets, and it's no new experience for either state. Coal and textiles are chiefly to blame, with declines dating back before World War II. From 1947 to 1957 alone, more than 100,000 jobs were eliminated in the Pennsylvania coal industry. Employment by railroads and their equipment suppliers also shrank in that state.

Wilkes-Barre, Hazleton, Scranton have had a long decline in employment, though Scranton has kept its labor force steady by recruiting new industry. These areas are former centers of anthracite mining—more commonly known to the public as hard coal.

Johnstown, in western Pennsylvania, suffers from decline in bituminous coal mining. Unemployment averaged 15% last year.

Erie has been hurt by loss of appliance manufacturing and by a cut in manufacture of railroad equipment, but there have been some gains in primary metals and electrical machinery.

Altoona, on the fringe of the bituminous coal district, has risen and fallen with the employment level in its railroad repair shops. The latest estimate shows 13% unemployment.

Charleston, W. Va., has also lost jobs in bituminous coal mining. Since 1952, the labor force has shrunk by 5,700 as West Virginians moved elsewhere for jobs—though many returned when the recession struck.

Huntington, W. Va., whose area includes Ashland, Ky., has also had a return migration that sharpens the pain

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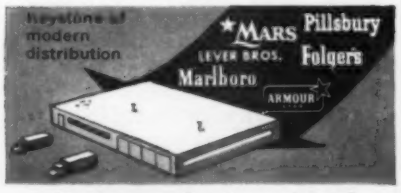

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of unemployment from plant shutdowns and decline in railroad work.

Lawrence, Lowell, Fall River, New Bedford have long been Massachusetts' chief labor surplus areas. By 1956, textiles had ceased to be the No. 1 employer in all except Lowell, and growth of electronics and other industries only partly offset the loss.

Providence, R. I., also had a textile unemployment problem before the recession, aggravated by troubles of its machine tool companies.

Trenton, N. J., has suffered a long-term decline also in textiles, metals, and earthenware; its most recent layoffs came in auto plants.

Atlantic City, across the state from Trenton, is an old standby on unemployment lists, but its problem is quite different: Its resort business is seasonal, and it has never been able to diversify its employment.

The Utica-Rome area, in New York's Mohawk Valley, struggled for years to replace its waning textile industry by durable goods manufacture. Then the recession hit the durable goods, knocking employment down from a postwar peak of 107,900 in August, 1957, to 95,200 in March, 1958.

III. The South

This region has two states—North Carolina and Tennessee—each with two labor markets of long unemployment.

Asheville, N. C., a mountain resort, has succeeded in attracting new electronics, textile, and apparel shops, but the new jobs haven't come so fast as hopeful workers from nearby.

Durham, N. C., has lost jobs to the mechanization in tobacco and textiles; most unemployed in this area are Negro women from these industries.

Knoxville, Tenn., began to feel the recession exceptionally early when Tennesseans who had worked in other states were laid off and came home.

Chattanooga's unemployment rate, 7.3% at last count, would be higher if the size of the labor force had not declined slightly this year.

IV. The Northwest

Spokane, Wash., ran into its highest unemployment since the Depression, with aluminum and lumber both cutting back, with secondary effects on transportation and utilities. The situation was aggravated by expansion of the labor force by migrants and by housewives and retired people.

Tacoma has had some success in diversifying from the lumber business, but not enough to avoid a high unemployment percentage when the recession also hit aluminum and construction.

Portland, Ore., started a downturn even before the recession, when lumber and wood products weakened. The area lost jobs, too, as the center of the wood industry moved southward in Oregon.

V. What to Do About It

Long-term unemployment is the target of the area redevelopment program, suggested by the Administration on a $53-million scale and by Congress on a $389.5-million scale.

The President's proposal is so modest that Congress hasn't even considered it seriously. On the other hand, the bill of Sen. Paul Douglas (D-Ill.) passed the Senate in late March by a narrow 49-46 margin—far below the 60 votes needed to overturn a Presidential veto. The House has a companion bill in committee; because backers are discouraged by the low affirmative vote in the Senate, the committee may scale down Douglas' proposal.

The ultimate Senate-House compromise is believed certain to be lower than $389.5-million. Even then, it may be vetoed by Pres. Eisenhower, who thumbed down Douglas' bill last year on the ground it called for Washington to do too much. Democratic leaders in Congress have little hope of overriding a veto, but they want at least to get a bill to the White House, for political reasons.

• **Comparing the Plans**—Douglas proposes a $300-million revolving loan fund to be parceled out to eligible areas on extremely favorable terms—federal participation up to 65% of cost, up to 40 years to repay.

Of this fund, $200-million would be available for construction of factories and for machinery and equipment—and $100-million for related facilities, such as sewers and water systems, that the locality needs to attract new industry.

Another $75-million would be provided in outright grants for areas so depressed that they can't borrow even at the government's ultra-liberal terms. This money would be for the same purposes as the loans. There is also a provision for $10-million to retrain unemployed workers in new skills, and $4.5-million for technical assistance to localities—studies of resources, markets, labor, and transportation.

In contrast, the Administration proposes $50-million in loans and $3-million in technical aid. The loans would be for only 25 years. Federal loans would be limited to 35% of a project's cost; there would be no outright grants.

Last week, the Senate moved swiftly, with the House expected to follow this week, to create an 11-man Special Commission on Unemployment, with 60 days in which to study spotty unemployment and to make recommendations. This could be a backstop for the Douglas bill, and a way of mustering public support for it or a similar bill. **END**

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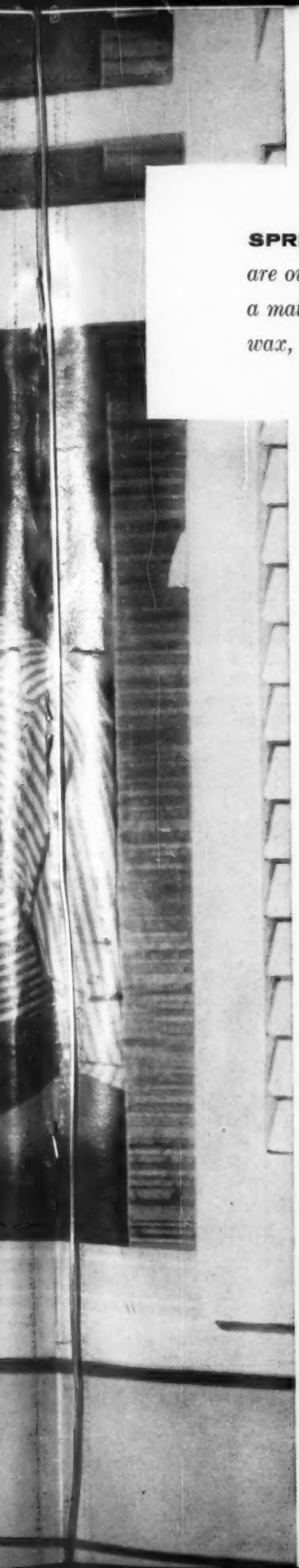

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OILMAN Taro Yamashita plugs Mideast oil development. His Arabian Oil Co. upset old 50-50 company-country profit-sharing formula by operating Persian Gulf concession on 43-57 basis. In 1930s, he played part in ill-fated Manchurian adventure.

BANKER Kiichiro Satoh tussles with Japan's chronic shortage of capital for industrial development. He has spent his life in the powerful Mitsui combine. He now holds influential post as president of Mitsui Bank, one of Tokyo's largest, and often gives counsel to government.

BUSINESS WEEK reports on . . .

Japanese Businessmen

Leaders in an "economic miracle" that has made Japan one of the fastest-growing countries in the world, Japanese businessmen have come to command a new position and new prestige.

In a marriage that rocked Japan's imperial tradition, Crown Prince Akihito last week took commoner Michiko Shoda as his consort.

Overlooked in the worldwide publicity surrounding the colorful Shinto ceremony is the fact that Michiko-san is no penniless Cinderella. To Akihito, she can offer a respectable dowry as daughter of the president of Tokyo's profitable Nisshin Flour Milling Co.

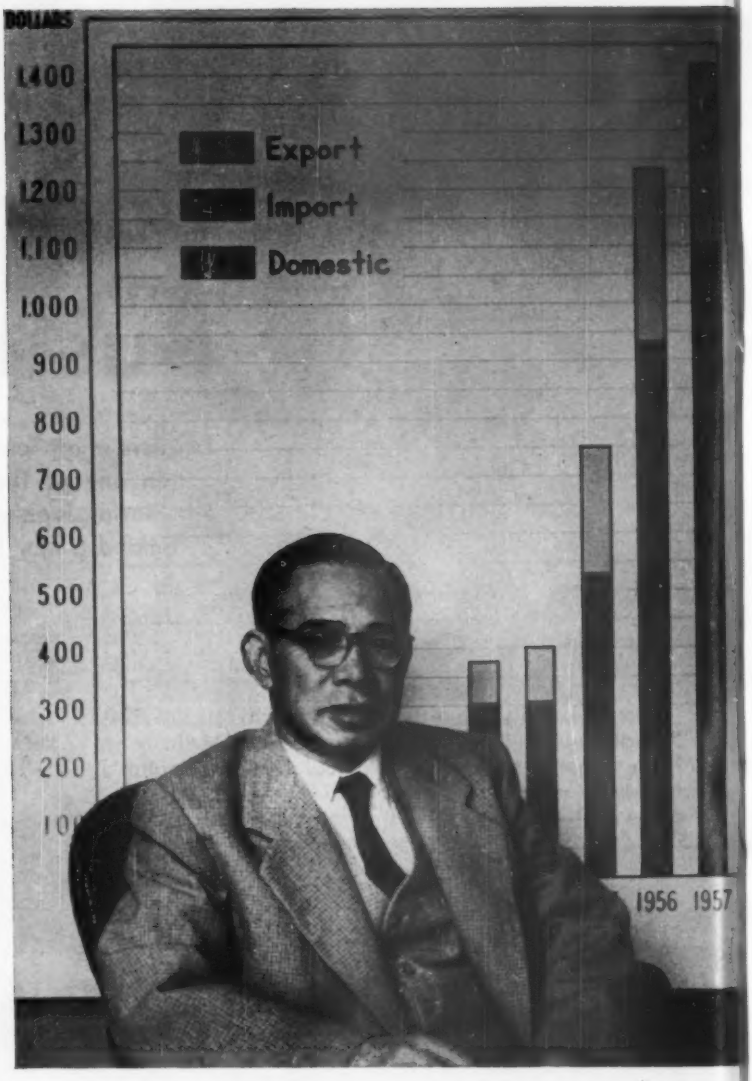
More important, the royal marriage—in a very real sense—symbolizes the vast prestige that businessmen and their families command in the new, postwar Japan.

• **Talent Pool**—In trade, Japanese businessmen have

POLITICIAN Ichiro Kono, a big wheel in the ruling Liberal-Democratic Party, has widespread business interests ranging from farming to fisheries. Here he is playing Japanese game of "Go."

MERCHANT Yujiro Iwai (above) of Iwai & Co., medium-sized trading company, is a free enterpriser. His home base is industrial Osaka, where his family has lived for generations.

TEXTILEMAN Kojiro Abe's Toyo Spinning Co. is power in Japan's cotton, wool, and rayon production. Abe took over the presidency from his father.



EXPORTER Yasutaro Niizeki bosses Mitsui Bussan. Last February, he merged his Daiichi Bussan with Mitsui. Both were part of huge prewar combine.

SMALL businessman is typified by Ishii brothers. Their three machine shops supply plumbing components for U. S. manufacturer.

(Story starts on page 102)

been far-reaching in their search for markets. They have pushed exports, the lifeblood of their economy, in all parts of the world, from Iran to the U.S.

At home, they have been the driving force in rebuilding a war-shattered economy. They have taken to heart the lessons learned from close contacts with the U.S.—during the military occupation, through the Korean War period, and by extensive licensing agreements with U.S. companies.

In fact, as an island country meager in natural resources but rich in human skills, Japan since defeat in 1945 has drawn heavily on the talents of its businessmen to make rapid progress. In turn, the U.S. has begun to count on Japanese businessmen as a stabilizing force in helping keep Japan—an Asian country pressured by Communism—allied with the West.

• **The Rub**—To Japan's businessmen, postwar prosperity is only one side of the coin. For the old problem of how to keep expanding trade continues to haunt them.

Japan depends on imports for almost all industrial raw materials and for 10% of food requirements. To pay for these imports, it must export finished goods.

The main rub is that Japan, by abortive military adventures, has lost its "guaranteed" markets in Formosa, Korea, Manchuria, and China. Its "Greater East Asia Co-Prosperity Sphere" now is a dream recorded in history books. Shorn of its former empire and confined to four relatively small islands, Japan again is looking outward—but to world markets where competition from other countries is fierce.

• **Preview**—Recently, Japanese businessmen got a bitter

Profile of a Tokyo Businessman

For a moment, you almost thought you were about to meet a Western businessman.

The building—in Marunouchi, Tokyo's business district—is sleek and modern. The waiting room, it is high-ceilinged, looks vaguely Western. Paintings decorate the walls, and company sport trophies stud the shelves.

Then, you notice the geisha doll in a glass case on the shelf. You remember that the receptionist was murmuring "doe-zoe" instead of the English "please" as she ushered you into the room. And you had arrived late for your appointment because of the difficulty in finding addresses in Tokyo.

A young, short Japanese comes into the room.

"You must go down to the area around the old capital of Kyoto to see the real Japan," he says slowly to break the ice. He explains that he studied after the war at the University of Southern California. He speaks English well and knows the U.S.

"Mr. Saito, our president," he says with an air of reverence by way of introduction, as his boss comes through the door.

Saito-san bows as he accepts your calling card. His face seems immobile; his manner, restrained.

You explain that you're an American businessman looking for Japanese goods to sell. Though not speaking English, he catches the nuances of all that you say.

Saito-san explains—with his young assistant translating—that he can't help you much. By now, after several days in Tokyo, you're accustomed to hearing that. Most Asians—and particularly Japanese—are self-critical, to a fault.

Suddenly, Saito-san launches into a 20-min. lecture on Japan's problems, from exports to unemployment.

"What do you think about the American boycott of Japanese goods?" he finally asks.

"There isn't a boycott," you answer. "It's the way you sell at low prices—not so much the volume—that rankles our companies and congressmen."

"Unfortunately," he says politely, "we haven't always had your best American buyers in Japan. They ask us to make cheap copies of their products."

"We aren't like the rest of Asia," he goes on. "We have machines. Go see for yourself—the new Kawasaki steel mill at Chiba. We don't want or need handouts from Washington, like some other Asians. But we've got to trade to feed and clothe our people."

Later, you begin to form a picture of the Japanese businessman.

He is the original Organization Man. Or so it would seem. He runs his company paternalistically. The "family spirit," dating back to Japan's feudal clans, is still alive.

Despite this, the businessman doesn't appoint just family members to key company positions. Japanese business—as you learn—always has made room for the young man with few "connections" but with bright ideas. That's even more true today than prewar. In fact, a new managerial class separate from the stockowning class is burgeoning.

The Japanese businessman, though seeming withdrawn, is really an outgoing, friendly type. He worries about social benefits for his workers. He frets over how to get along with his competitors. He is inclined to work at his job most of his waking hours. That can mean stag business parties several nights a week, on top of frequent management meetings during the day.

He is not so much the aristocrat as in former times. But he recognizes that in a tight, little island country where good jobs are scarce, he is among the elite—secure in position, well off financially, high up the ladder socially.

He clearly would like to invite you into the privacy of his suburban house for dinner. But evidently he isn't sure his way of living will please you. You wonder whether you can ever be his close friend.

You come away from Tokyo sure of one thing: For all the contacts with the U.S. and Europe—through business trips and frequently education abroad—the Japanese executive is no carbon copy of the Western executive. And never will be.

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In natural resources, JAPAN is mostly a "have-not" nation. But with some 150,000 companies, from workshops to big plants, it's an industrial power. Symbols show centers for textiles, shipbuilding, steel, engineering, and chemicals.

taste of future export troubles. From 1956 to 1957, they had invested at a headlong pace in new plant and equipment, spending some $3-billion. Then, the boom slowed down. In the retrenchment that followed, businessmen discovered that they had more manufacturing capacity than export customers.

Though Japanese businessmen regard the decade ahead as a critical period for economic growth, they now see the pre-1958 boom reviving. Besides that, they have a solid base from which to start the uphill climb.

A Record Comeback

Japan's postwar recovery in many ways surpasses even West Germany's famed "economic miracle." The recovery is all the more striking when compared with the generally slow-paced development of industry in other free Asian countries such as India and Indonesia.

Look at the signs of prosperity. In Tokyo, one out of every four houses and cabarets has a TV set. In Shinsaibashi, Osaka's gay quarter, ladies wear styles copied from Paris and New York. In many homes, electric appliances such as rice cookers and washing machines are commonplace.

• **Figures**—Then, glance at statistics. Japan's gross national product—$28.2-billion last year—is about on a par with that of Italy. Since 1950, its gross national product has risen annually an average 8%. Even the Soviet Union, for all its propaganda claims about economic growth, has not done better than that. In addition, national income is 50% above prewar levels; per capita income, 25% above prewar days.

Or check the recent record of some typical companies. Kirin Brewery's sales to beer-loving Japanese—$110-million last year—are nearly four times larger than in 1950. Sony Co., a postwar baby, grossed $11.6-million last year from domestic and export sales (particularly in the U.S.) of transistors, radios, and audio equipment. Electrical-electronics giant Hitachi, Ltd., has boosted sales from $42.2-million in 1950 to $330-million last year.

• **Big Business**—Through joint ventures, Japan's fast-growing companies are becoming Big Industry. The U.S. military occupation ruthlessly split up the Zaibatsu—the banking, manufacturing, mining, and trading empires that had dominated the prewar economy. Today, these are rapidly regrouping. The formal merger of Mitsui Bussan and Daiichi Bussan two months ago into Mitsui Bussan K. K., now Japan's biggest trading combine, points up this trend.

Along with that, companies are pushing into atomic energy development and petrochemicals. Mitsubishi Atomic Energy Industries Co. is one example. Another is Showa Yuka, a petrochemical company formed by the Fuji Bank, Hitachi, Showa Denko, and 13 other firms.

I. Businessmen Ride High

Behind this upsurge in industrial activity are Japan's businessmen. Some are financiers and industrialists who have seen the ebb and flow of Japan's economic growth since the golden age of the early 1900's. These elder tycoons are optimistic about Japan's future.

Others, much younger, constitute what Western observers like to call "a new breed of businessmen." They have reached the middle years of success after the economic dislocations of the Great Depression, China War, and World War II. This younger breed, though proud of Japan's economic recovery, have doubts about the future.

Today, Japanese businessmen still are only one segment of the country's elite class. The militarists (Gumbatsu), of course, are gone. But the government bureaucrats (Kanbatsu) remain as an independent, thriving force. Beyond that, trade unions nurtured a decade ago by the U.S. Occupation have grown in power.

In this diffusion of social and political power, Japanese businessmen, the former Zaibatsu managers, are riding higher than ever before in history. You can see that in all sorts of ways:

The more successful businessmen live in comfortable—sometimes opulent—style. Despite skinny salaries (by American standards), they have fat expense accounts. Their companies frequently pay for private cars and homes. And $100-a-plate geisha parties to entertain customers and government officials are not uncommon.

Despite widespread "cottage" industry, the big, private companies are the driving force behind Japan's economic expansion. They are the main job providers. That's in a country with a 92-million population where the birth rate is declining—but not fast enough to avoid economic troubles. About 800,000 new workers still enter the labor force each year.

Businessmen carry undisputed weight in top government circles. The ruling Liberal-Democratic Party leans on them for both money and advice. One of Prime Minister Nobusuke Kishi's chief

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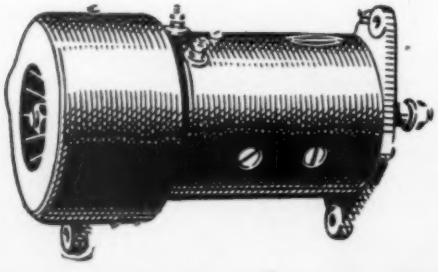

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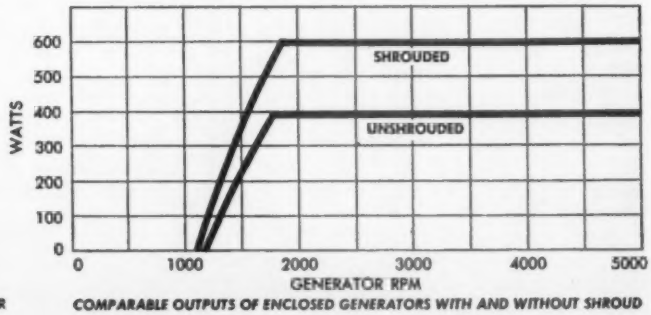

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GENERAL MOTORS LEADS THE WAY—STARTING WITH Delco Remy ELECTRICAL SYSTEMS

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advisers is Taizo Ishizaka (picture, page 126), president of Tokyo Shibaura Electric (annual sales: $181-million). Kishi's foreign minister, Aiichiro Fujiyama, is a former sugar baron.

Big Business now is a real match for the entrenched government bureaucracy. For instance, oilman Taro Yamashita—incidentally, a friend of Kishi—won a long tug-of-war with the Ministry of Finance and the Bank of Japan over his scheme for oil exploration in the Persian Gulf. The government now is even lending him money for the project.

As another example, the Ministry of International Trade & Industry keeps close tabs on all exports. Yet Japan's myriad industry associations—from the Silk & Synthetic Textiles Exporters' Assn. to the Export Christmas-Tree Lamp Mfg. Cooperative Assn.—police production and help control exports by setting "voluntary quotas."

Building the Pedestal

There's no denying that the U.S. has played a key role in helping to put the Japanese businessman on his new pedestal.

After the atomic bomb attacks on Hiroshima and Nagasaki, Japan lay in ruins. War had burned out half the homes and buildings in 36 principal cities. Most of the prewar merchant fleet was out of commission—or sunk. Domestic industry was either destroyed or woefully disorganized.

At first, SCAP (Supreme Commander of the Allied Powers), the military government headed by Gen. Douglas MacArthur, purged wartime business leaders and put the brakes on industrial recovery. By 1948, with industry in chaos and inflation raging, Washington decided to change policy. Instead of keeping Japan down at the American taxpayer's expense, it set out to help build the country as an anti-Communist stronghold in Asia.

Washington announced a stabilization program that, in effect, spurred industrial production. Then, in early 1949, banker Joseph M. Dodge led a mission to Tokyo to seek ways to stop inflation and create a sound currency.

• **Industrial Boom**—Dodge's program turned out to be just what Japanese businessmen needed. Though deflationary, it started an industrial boom. In 1949, production jumped 25%. Consumption climbed 10%.

The Korean War turned the recovery into a full-fledged boom. By the time Korea broke, the U.S. had spent an estimated $2-billion to bolster postwar Japan. Then, in 1950, it began purchasing Japanese equipment, from trucks to food supplies, for the United Nations' forces in Korea. By 1954, the total spent amounted to $3-billion. "Korean millionaire" became an everyday phrase describing Japanese businessmen who had made windfall profits from the Korean War.

• **Licensing Deals**—Then, during and after Korea, Japan developed closer ties with U.S. industry. Japanese businessmen were hungry for information about new products and processes. They welcomed licensing agreements to help catch up on the latest Western technology.

Over the past eight years, Japanese companies have signed some 825 deals with foreign companies. Under these "technical assistance contracts," Japanese companies agreed to pay flat fees,

***Japan's Big Ten in manufacturing seem small* by American standards. U. S. Steel alone has annual sales more than twice the combined sales of these top ten companies . . .**

NAME	PRODUCTS	SALES*
Yawata Iron & Steel	Iron and steel products	$340-million
Hitachi	Electric machinery, communications equipment, rolling stock	330-million
Fuji Iron & Steel	Steel products	252-million
Tokyo Shibaura Electric	Heavy electrical products, appliances	210-million
Nippon Steel Tube	Tube and other specialty steel products, shipbuilding	200-million
Mitsubishi Heavy Industries	Aircraft, heavy machinery, shipbuilding	199-million
Nippon Oil	Petroleum refining	170-million
Toyo Rayon	Rayon synthetics, especially rayon staple fiber	152-million
Mitsubishi Shipbuilding & Engineering	Shipbuilding	151-million
Toyota Motor	Automobiles	151-million

*From Oct. 1957 to Sept. 1958

***. . . But Japan's Big Ten in trading are large,* reflecting the country's heavy dependence on imports and exports. Through mergers, these trading houses are growing bigger and bigger . . .**

NAME	PRODUCTS	SALES*
Mitsui Bussan**	All types	$1.1-billion
Mitsubishi Shoji	All types	$1-billion
Marubeni-Iida	Mainly textiles	$903-million
C. Itoh & Co.	Mainly textiles	$807-million
Nissho Co.	Metals and machinery	$732-million
Nichimen Co.	Mainly textiles	$487-million
Toyo Menka	Mainly textiles	$439-million
Gosho	Mainly textiles	$286-million
Sumitomo Shoji	Metals and machinery	$279-million
Kinoshita Shoten	Steel & machinery	$242-million

*From Oct. 1957 to Sept. 1958 actual sales volume, not including contracts for future delivery
**Formed by merger of Daiichi Bussan and Mitsui Bussan on Feb. 15, 1959.
Data: Yamaichi Securities Co., Ltd.

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royalties (usually around 2% of annual sales), or a combination of the two. About 75% of the agreements dealt with technical knowhow concerning electrical machinery, communications equipment, machine tools, and chemical products and processes.

Though Switzerland, West Germany, France, and Britain gave a helping hand, U.S. companies from du Pont to RCA led the way. Altogether, over 525 U.S. companies participated in the licensing program. Some—as one U.S. executive puts it—drove a hard bargain, knowing Japan's desperate need for technical information.

Lid on Foreign Capital

Thus, U.S. companies are sharing in Japan's industrial boom. Last year, they earned over $25-million from licensing. The Bank of Japan estimates that this income will total $50-million annually by 1961.

On the other hand, Japan deliberately has slowed U.S. and foreign direct investments. The Commerce Dept. estimates that U.S. investments in Japan now stand at only $181-million. Most of the money is in oil refineries partly financed by California-Texas Oil Co. (Caltex) and Standard-Vacuum Oil Co. (Stanvac). Even if you accept some U.S. businessmen's estimates of investments that run as high as $450-million, the figure is still low compared with U.S. investments in some West European and Latin American countries.

• **Stumbling Block**—On the books, Japan's laws favor foreign investments. But it has not worked that way in practice.

The stumbling block is "validation"—the process of getting government approval for investments. The Bank of Japan is responsible for the final decision. The trouble is that too often it leaves the foreign investor up in the air—without a clear yes or no. It may take a year to get a decision.

Even with "validation," U.S. companies usually must play ball with a local Japanese partner. Caltex's linkup with Nippon Oil Co. in a joint subsidiary on a 50-50 basis is a case in point. Generally, the U.S. share in joint companies in Japan is much less than that. About the only U.S. companies with more than 50% ownership are ones that operated in Japan prewar, such as National Cash Register Co. and Singer Sewing Machine Co.

Japanese businessmen and officials give all sorts of reasons for keeping the lid on foreign investments. They argue:

• Heavy investments requiring remittance of earnings in dollars would upset Japan's delicate foreign exchange balance.

• Foreign investments on a large scale gradually might bring foreign ownership of important domestic industries.

• **Nationalism**—The real reason is Japan's traditional economic nationalism. With companies back on their feet now, this attitude is stronger than ever. Businessmen even tend to poohpooh foreign technical help.

The fact is that Japanese businessmen see a new stage ahead. The emphasis is on how to sell more effectively in highly competitive world markets. Businessmen realize that for all its trading experience, Japan is not yet a master of modern marketing techniques. That's why selling missions from the textile, steel, and other export industries so frequently take off on one-month or two-month foreign tours.

EXECUTIVE Konosuke Matsushita, a self-made man, started as a meter reader, at 65 heads Matsushita Electric.

II. Trade Problems

To grasp the importance of exports to Japanese businessmen, note one point. Many companies have two completely separate production lines—one for the domestic market, another for exports. The plant producing for the local market may be in Tokyo; the export plant, in Nagoya. The export product may differ in both design and quality from the domestic one.

Still, Japan by no means is out of the woods on rebuilding foreign trade. It's not hard to see why:

• Japan does not yet have its pre-

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war share of world markets. In 1938, it ranked fourth among the world's trading countries. Today, it is eighth. Its share of the trading pie worldwide has been sliced from 5.4% prewar to around 2.7%.

• Imports, on the other hand, have passed prewar levels. That's because of the big, postwar improvement in living standards of workers and farmers. Japanese manufacturers have found the burgeoning domestic market both attractive and profitable.

Thus, in 1953 and 1957, mounting imports coupled with a slowdown in exports created a balance of payments crisis. The Bank of Japan had to step in with a tight-money policy to check the domestic boom and bring imports more in line with exports.

• **Shift in Markets**—You can find two basic reasons behind Japan's trade troubles:

• It no longer has sure-fire markets in Asia. It lost its closest markets in Formosa, Manchuria, Korea, and China because of military defeat and the Communists' victory on the Chinese mainland. Prewar, these markets that sold raw materials in exchange for finished Japanese goods were not so profitable as many Japanese businessmen would have you believe. But they were a nice cushion to keep exports at a comfortable level.

• Most countries that were big purchasers of Japanese goods are building their own industries. Take one example—textiles. Underdeveloped countries trying to industrialize usually start by constructing textile mills. Thus, Pakistan, Indonesia, and other countries are substituting locally made textiles for the yard goods formerly imported in large quantities from Japan.

Beyond that, Japan's whole pattern of industry—and exports—has shifted since the war. Bombings destroyed a large chunk of the textile industry. The slow recovery of this industry has helped put new emphasis on the production of capital goods.

• **Price Competition**—That, in turn, has raised the problem of price competition in export markets. Japan always has been able to sell a broad range of consumer products—from cameras to chinaware—at relatively cheap prices. But lack of sufficient modern machinery and high transport costs for raw materials have made Japan a high-cost producer of capital goods.

Industry slowly is lowering these costs. But Japan's capital goods producers still run into stiff price competi-

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tion from the U.S., Britain, and West Germany when they try to sell locomotives, machine tools, and other such products in export markets.

Link to Southeast Asia

Since World War II, Japan has pushed the idea of linking its "industrial workshop" to the raw material resources and markets of Southeast Asia. That idea has become a cardinal principle of Prime Minister Kishi's foreign economic policy.

Many U.S. strategists see merit in the program. They would like Japan, an important ally in Asia, to be tied more closely to Communist-threatened Southeast Asia.

The program has been easier to talk about than to put into practice. For one thing, such countries as South Vietnam and the Philippines are still somewhat cool toward Japan as their former wartime enemy. That's in spite of Kishi's personal swing through

ECONOMIST Hidezo Inaba advises both government and private business, lectures on Japanese television.

Southeast Asia to sell Japan as a peace-loving country.

In addition, Southeast Asia—though industrializing—has developed at a snail's pace. The U.S. has poured money into South Vietnam, Laos, Thailand, and other countries. But generally the countries make slow use of it. That's because of local nationalism, government inefficiencies, and—frequently—corruption in both business and government circles. The net result

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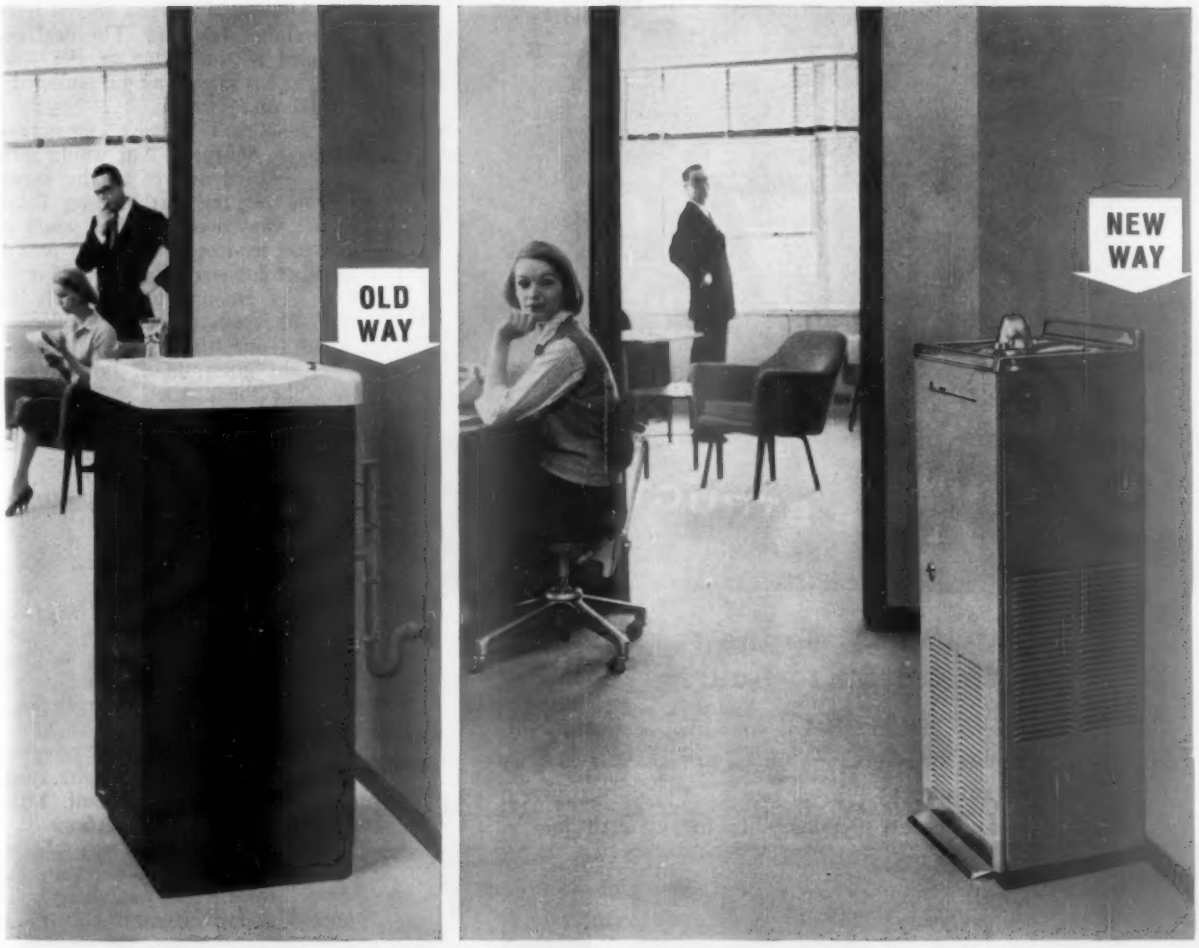

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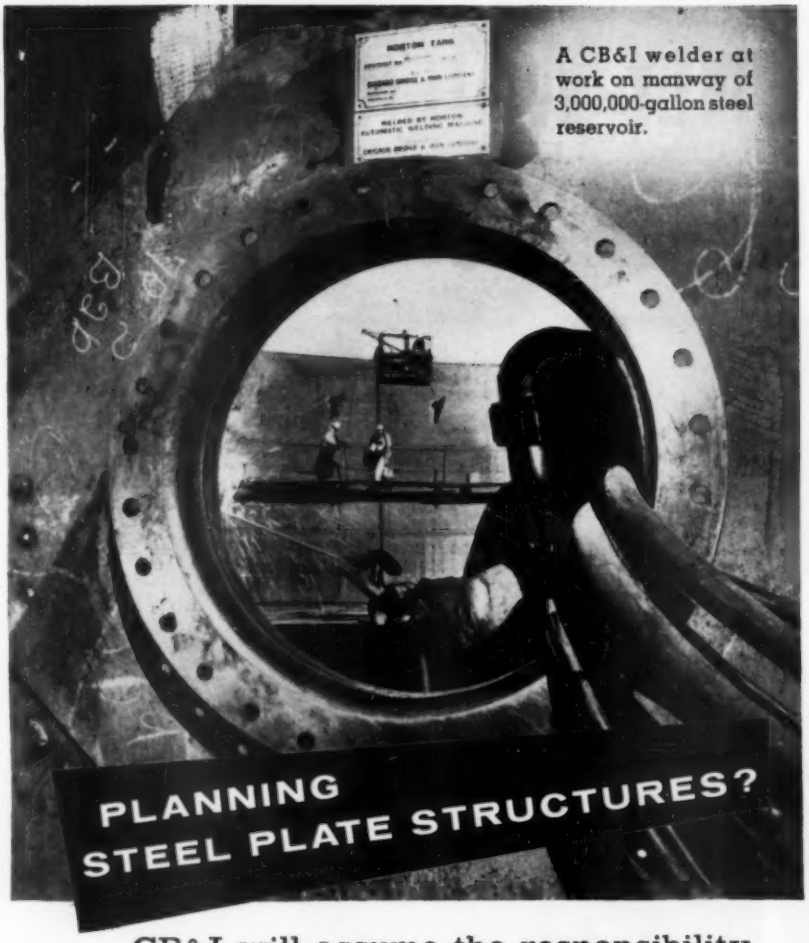

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is that Japan, even when granting export credits, has found Southeast Asia a relatively poor bet for boosting exports.

Take the case of India. During Prime Minister Nehru's visit to Tokyo in the fall of 1957, Japan offered India a $50-million yen loan. The deal was concluded in the spring of 1957. So far, India has made only one order—for a 10,000-ton tanker.

• **Hitch**—Japan's massive reparations program in Southeast Asia would seem to be a partial answer to the export problem. Over the next 20 years, Tokyo will give away over $1-billion worth of goods and services to Southeast Asia as repayment for war damages. This, in effect, will amount to a subsidy for exports of Japanese finished goods.

There's one hitch in the program. The Kishi government, on its part, would like the program to help both Southeast Asia's long-term development and Japan's sales of heavy capital goods. But already it has found that countries such as Indonesia tend to take the short-term view—and prefer consumer goods to capital goods.

• **China Trade**—Shifting their sights, Japanese businessmen see revived China trade as one answer to their export problems. Eventually—as they like to point out—Japan might sell machinery and equipment in return for Red China's "surplus" raw materials.

A year ago, Japanese-Red Chinese trade looked like a bright prospect. Businessmen thought it might easily run to a small, but significant, $100-million yearly in both directions.

Soon, however, Peking was sabotaging the whole idea by denouncing the Kishi government as "imperialist" and "opposed to fair dealings." That was just before Japan's national elections.

Peking may have switched signals—just when trade was getting started—in order to undermine Kishi's pro-West government. But many Tokyo observers pointed to a simpler reason: Red China was in no position to pay for Japanese imports because of its heavy exports of raw materials to the Soviet bloc.

Many Japanese businessmen still keep the dream of renewed China trade very much alive. In addition, a leftist-leaning Socialist delegation recently visited Peking to discuss—among other things—trade with Red China. But, at the moment, most Japanese doubt whether such trade will ever be re-established on a large scale.

As a result, Japanese businessmen

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are focusing on the Western Hemisphere in their export drive. Latin America is a big target. For instance, a "floating trade fair" sponsored by Japanese industry has been showing products at Latin ports.

III. U.S. Market

Today, 88 Japanese companies have tie-ins with Latin companies. A key country for Japan is Brazil. There, it has invested $35-million. Ishikawajima Heavy Industries, for one, is building an $18-million shipyard. Seven Japanese steel and machinery producers are helping to put up a 500,000-ton Brazilian steel mill.

But the U.S. market alone has proved to be Japan's postwar bonanza. In 1950, exports to the U.S. came to only $179-million. Last year, the figure was nearly $700-million—or approximately 25% of Japan's $2.9-billion export total.

The U.S. is not only Japan's biggest export market, but also the fastest growing. Japanese manufacturers hope that by 1962, the U.S. will be taking $1-billion worth of their goods annually. Many U.S. businessmen think that the Japanese can and will hit that mark.

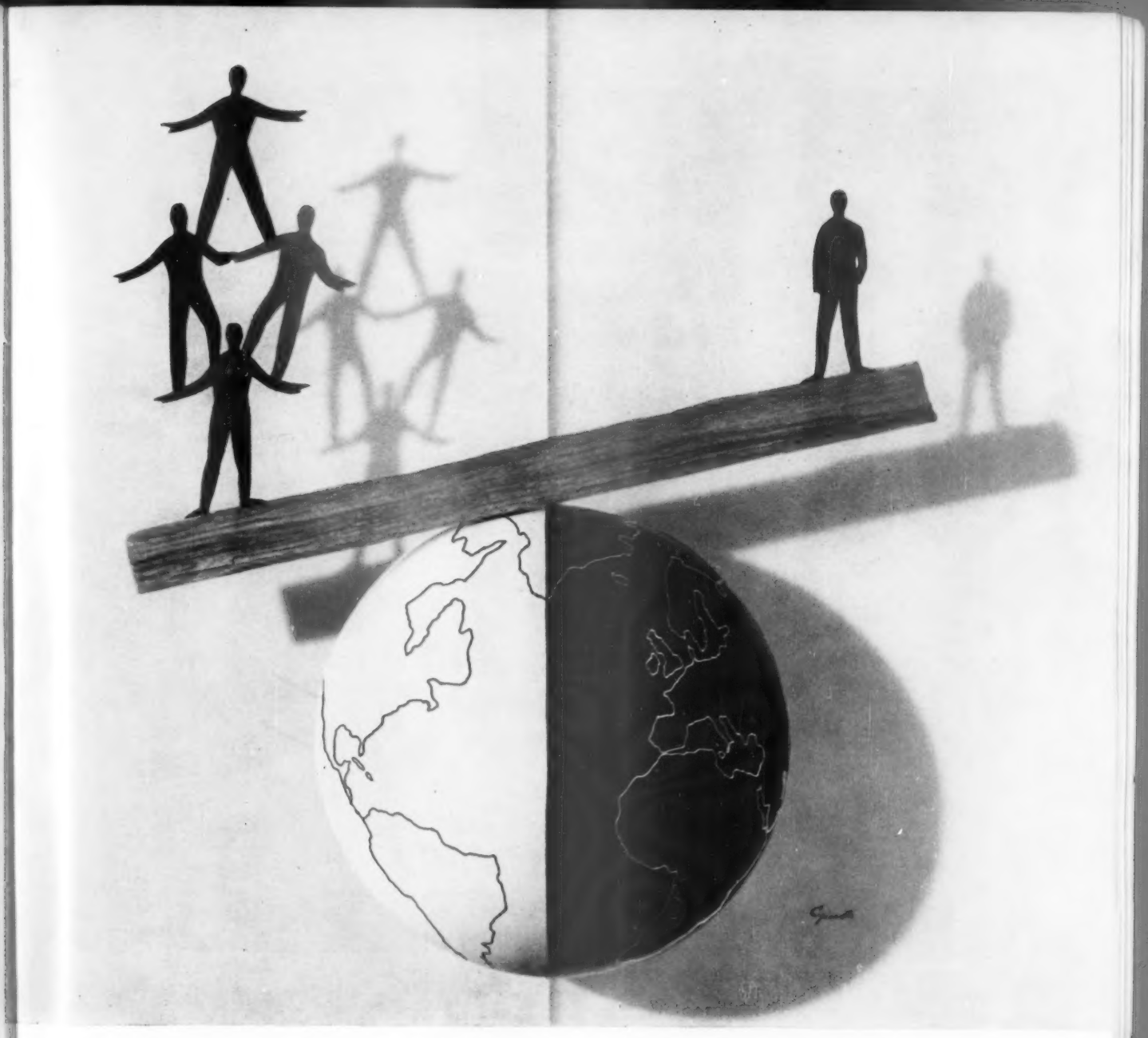
• **Narrowing the Gap**—The goal—as Japan's economists and trade officials see it—is an important one. Every year since the postwar revival of trade, Japan has run a sizable deficit in its trade balance with the U.S. In 1957, the gap was around $1-billion. Last year, it was considerably smaller—about $146-million—but only because of economic retrenchment at home.

So far, the trade gap has not hurt much. U.S. military expenditures and Japan's own "invisible" earnings—from shipping, insurance, and other services—have filled it. But military expenditures are declining. And proportionate to growing U.S.-Japanese trade, the invisible income gradually will become less of a factor in helping cover the deficit.

Thus, Kishi's government is pushing for stepped-up U.S. sales. Japanese manufacturers are tackling the U.S. market here from all directions:

• Tokyo's Takashimaya department store has opened a branch on New York's Fifth Avenue, and plans stores in at least two other cities.

• The Japanese External Trade Recovery Organization (JETRO), supported by both government and busi-



Things are different overseas today. Some foreign markets will take on new importance as population soars. Africa and Latin America, for example, will gain 150 million of the 500 million population increase expected in the free world by 1970. How will this affect your business? Ask the man who can do *more* for you overseas, your FNCB *banker*.

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ness, has set out to upgrade the quality and prices of products sold to the U.S.

• Hundreds of Japanese companies have opened offices here. Mitsui Bussan, which handles $60-million worth of U.S. imports yearly, has established offices in New York, Chicago, New Orleans, Dallas, San Francisco, Portland, and Seattle.

• **Two-Way Contracts**—Then, two-way deals between U.S. and Japanese companies have sprouted in the past few years—in some cases, to meet Japanese competition. Gladding, McBean & Co.—producer of fine chinaware—has agreed to market here a low-priced line of chinaware made by Japan's hard-selling Noritake. Hamilton Watch Co. is giving technical assistance and patents to a Japanese company so that it can make low-priced watches for the U.S. market.

In addition, Continental Brass Co., owned partly by Lafayette Brass Mfg. Co., is using Japanese workshops to make garden sprinklers for sale in the U.S. Several motion picture camera sales agencies have contracts for Japanese companies to make cameras and lens units.

The Tariff Bogey

Still, strong protectionist industries here are a continuing nightmare for Japanese manufacturers. Even with its "voluntary quotas," Japan's textile industry is running up against a wall of opposition in the U.S.

Competition from other foreign companies in the U.S. market is adding to Japan's export troubles. As one example, the camera industry (principally Canon and Nippon) last year failed to boost exports 50% to a hoped-for $20-million in sales primarily because of West Germany's Leica sales.

• **Big Gamble**—To understand why Japanese businessmen put such a stake in U.S. sales, listen to one Japanese auto maker's explanation: "Have you ever tried to sell 1,000 cars in Southeast Asia? Do you know how many countries we'd have to sell in? Do you realize the red tape and the headaches of getting payment in hard currencies? Right in the U.S., we can find several thousand Americans who will buy our car just to say they own a Japanese automobile."

Thus, you find both Toyota Motor and Nissan Motor gunning for coast-to-coast sales of their cars here. Both companies have started selling just when other foreign car makers are push-

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ing hardest and when Detroit is about to introduce its own small cars.

But Japan's long-range view is that its businessmen are bound to have more trade with another industrialized country such as the U.S. than with any number of underdeveloped countries.

IV. New Breed

The search for world markets is old stuff to most Japanese businessmen. What's so different now, is this group's top social and economic position inside Japan.

This high position, of course, is hardly unique when you look at the top business groups in other countries:

• In France, well-established industrial managers—the "patronat"—have a special social status. Even under Pres. de Gaulle's tough-minded government, their opinions count a lot.

• In West Germany, former Nazi sympathizers such as Alfried Krupp and Friederick Flick are very much back in the picture. Chancellor Adenauer's Christian Democratic Party treads gingerly whenever government policy would seem to conflict with the wishes of Ruhr industrialists.

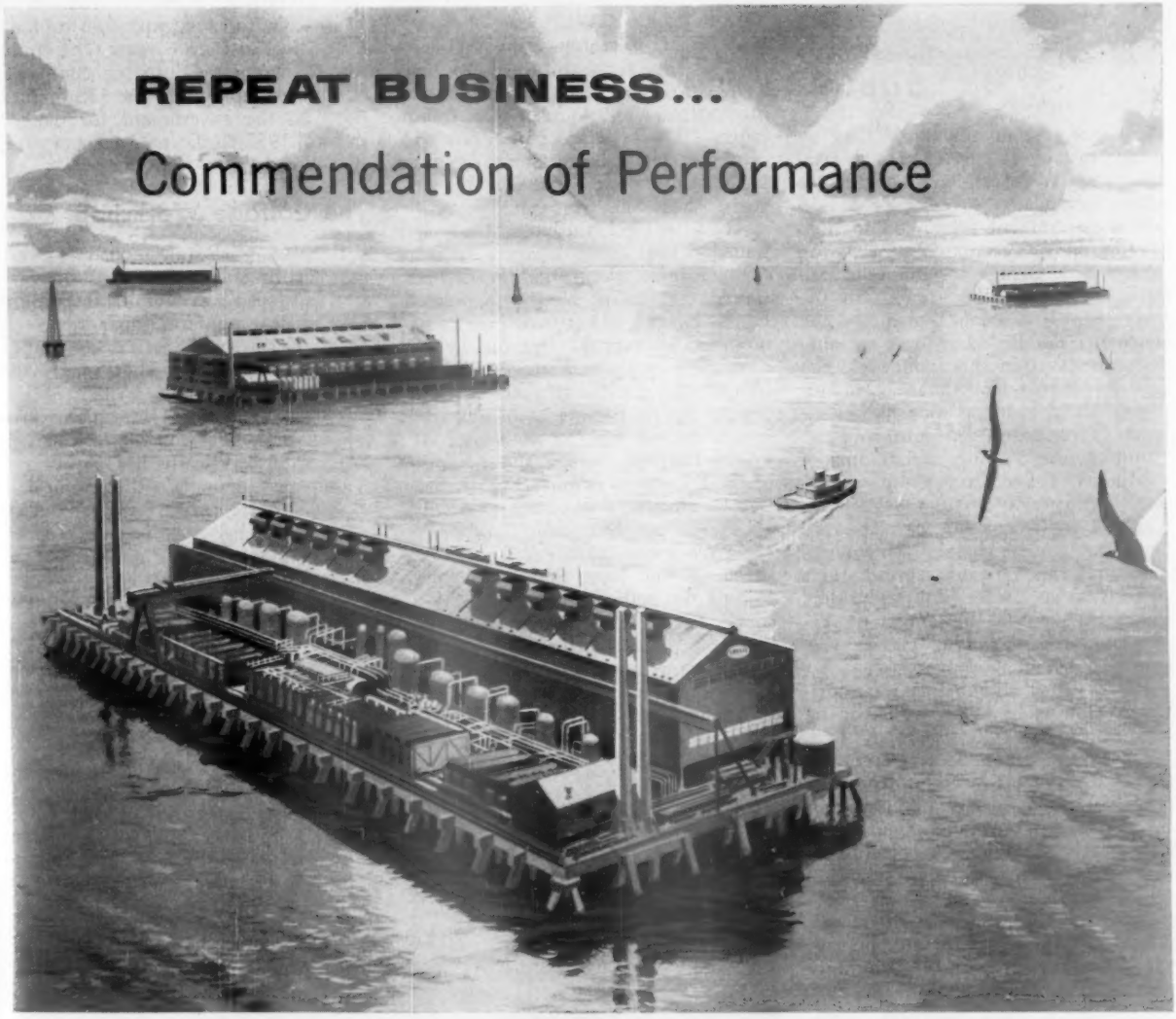
• India's Parsis, centered in Bombay, are a dynamic business class. The Tata and Wadia families—both Parsis—constitute a major force in India's development of private industry.

• **Feudal Country**—Still, to Westerners, the Japanese businessman seems wholly different from his counterparts in other countries. A quick look at Japan's recent history shows why.

In the mid-19th Century, Japan was a strange, feudal country. By its own choice, it had been outside the mainstream of world affairs for about 250 years.

Its social structure was rigid, from top to bottom. Sitting on high was the sacrosanct but powerless emperor. The real ruler was the shogun or military governor, backed by the samurai warrior class. Farther down the ladder was the great mass of peasants and artisans. The merchant businessmen were almost at the bottom of the heap.

• **Birth of the Traders**—When Comm. Matthew Perry opened Japan to the West in 1853, some merchant houses already were flourishing enterprises. But they lacked the money and power to tackle the whole job of trying to industrialize Japan. Only the new government, headed by the Emperor



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Meiji but still dominated by the samurai, was able to enforce enough taxation and create enough credits to finance new plants.

The government continued to hold its grip on the economy—even during Japan's early plunge toward industrialization. At the same time, with the government's encouragement, the merchant middle class was gaining strength. Within this framework, the Zaibatsu (meaning literally "money cliques") took shape as sprawling enterprises that reached out into banking, manufacturing, mining, and trading.

• **Military Takes Over**—From around 1900 to the early 1930s, the Zaibatsu spurred Japan's economic development. The Big Four—Mitsui, Mitsubishi, Sumitomo, and Yasuda—spread their interests far and wide. Politically, they tended to oppose the autocratic ex-samurai and land-owning classes, and supported liberal movements.

The Zaibatsu's dominance was short-lived. Just when Japan was evolving toward a modern state somewhat along European lines, the Great Depression snatched foreign markets from its hands. Militarists—with backing from the poverty-stricken rural population—took power. Middle-class political development suffered a violent setback.

By assassination and intimidation, the army grabbed the reins from both businessmen and government bureaucrats. For instance, in 1932, military extremists murdered Baron Takuma Dan, Mitsui's board chairman. Ambitious young Japanese began looking to the army and government for a career. Businessmen turned to armaments manufacturing.

Heyday of the Bureaucrats

Japan's defeat in World War II removed the militarists from its society. The immediate postwar period was the heyday of the bureaucrats. It was no accident that Shigeru Yoshida, a former diplomat who had climbed the long ladder of the bureaucracy, hung on to the premiership from 1948 to 1954.

Meanwhile, U.S. military government cut the Zaibatsu to size. It took over the stock of some 57 members of 11 top Zaibatsu families. It then sold Zaibatsu shares to the holding companies' employees and the general public. In its "decartelization" drive (similar to the one in West Germany), the military splintered Mitsui Bussan and Mitsubishi Shoji—the two largest trading houses that together had accounted for 70% of Japan's prewar foreign trade—into more than 200 trading companies.

• **Zaibatsu Regroups**—Split off from their parents, these companies in many cases lacked the managerial talent and financial resources to keep from foundering. "The breakup of the Zaibatsu," says one U.S. businessman, "slowed Japan's economic recovery by five years." Most observers would agree.

Then, in 1952, the peace treaty was signed. That freed Japanese industry to reorganize along traditional lines. Former Zaibatsu slowly regrouped. Family control, as occurred prewar, was no longer attempted. But, one by one, companies purchased stock in other companies. Ex-Zaibatsu managers began serving on the boards of numerous companies.

• **New Empires**—Look at the re-forming of the Sumitomo empire. Shortly after the Occupation's end, the presidents of 14 former Sumitomo subsidiaries organized a social club, called the Hakusuikai. Before long, Sumitomo Metal Mining was selling around 60% of its copper to Sumitomo Electric Industries and Sumitomo Metal Industries. These two, in turn, became the best customers of Sumitomo Chemical Co. And so it went, with ever-widening connections among the former companies of the Sumitomo Zaibatsu. The main difference from prewar days is that Baron Sumitomo—formerly Japan's richest man with an annual income of $3.3-million—now is out of the picture.

PRIME MINISTER Nobusuke Kishi readily takes advice of businessmen on Japan's economic and trade problems.

In the wave of mergers, ex-Zaibatsu banks helped pick up the scattered pieces of former holding companies. In fact, the banks again—as in prewar times—became pivotal in industrial development. That's because companies, lacking a broad domestic market for new securities, relied on commercial bank loans for new expansion capital.

In the past two years, the trend toward regrouping into big companies has picked up speed. Of 538 applications to the government for mergers in fiscal 1957-58, 73 involved companies that already were fairly large.

The Cottage Workshop

Even so, small-scale industry—operating side by side with Big Business—is vital to Japan's economy. It employs half of the nonfarm labor force. It works closely with larger companies, feeding them components and subassemblies.

• **Plus and Minus**—This unique integration of large companies with "cottage" industry clearly has advantages. A binocular company will buy most of its components from low-wage village workshops. That permits it to keep export prices low—and undercut U.S. binocular manufacturers.

But there are headaches, too. The back-street workshops usually aren't efficient enough to maintain standards. Quality control is almost out of the question. Delivery dates get out of whack, simply because the head of the family may fall sick. Sometimes, the result is shoddy merchandise delivered behind schedule to foreign customers.

Over the long run, these small enterprises may make even more trouble. The workers in them now earn less than 50% of the wages of workers doing similar jobs in large companies. But the opposition Socialist Party is agitating for a national minimum wage bill. If it is passed, many handicraft industries will head into bankruptcy.

That would aggravate Japan's chronic unemployment and underemployment. In addition, higher wage costs would drive up Japan's generally low prices.

Slow, Rigid Management

If widespread cottage workshops seem strange in industrial Japan, the way that big companies operate there is even stranger. Americans find in Japan what appears to be the same kind of inefficiency in big industry that they see elsewhere in Asia. But in Japan this usually stems not from disorganization, but from "overorganization."

A Japanese company, like Japanese society in general, has a niche for every worker and every operation. That's not much different from an American company. But in a Japanese company, there is rigidity in management, which slows it in coping with new situations.

• **Tight Control**—At the worker level, traditional forms of Japanese courtesy and etiquette still hold sway. For example, two men may work together

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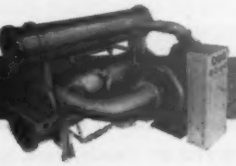

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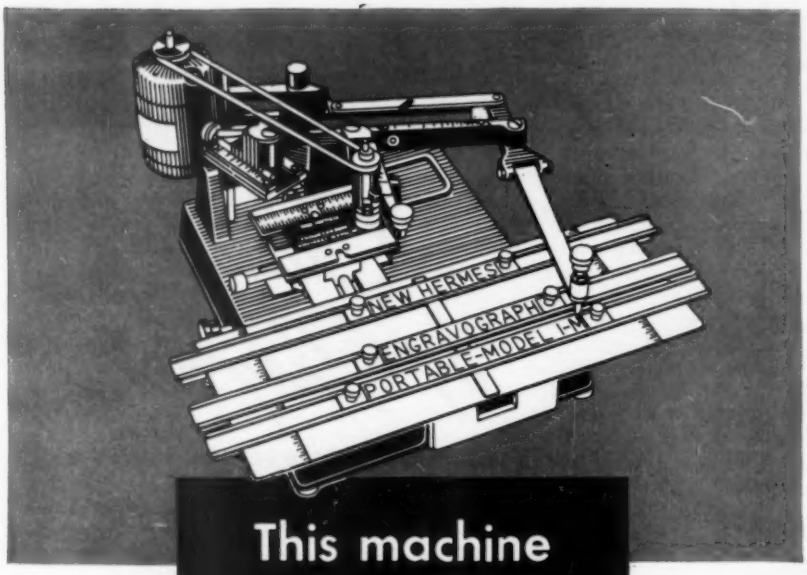

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for years, yet never call each other by anything but the Japanese equivalent of "Mr."

Beyond that, most Japanese companies are highly paternalistic. Once hired, workers are expected to show filial loyalty to their employers. In turn, the companies rarely fire workers. Thus, companies tend to create a tight little society of their own.

• **Pooled Resources**—The problem of "overorganization" goes deeper than that. Between companies, and between companies and the government, there is an intricate web of checks and balances.

For instance, in capital-short Japan, most companies must scheme to get enough money to build new plant. That forces them to pool resources with other companies in their same industry. On their part, small suppliers operating on a shoestring must work together. Otherwise, customers would try to play one supplier against another.

As for the government, it does little to control company activities—in theory. Actually, it puts its fingers in practically everything in the economy—far more so than governments in many other countries that claim to have a "free economy." One way is Tokyo's close control over trade, in a country where trade is vital to almost every company.

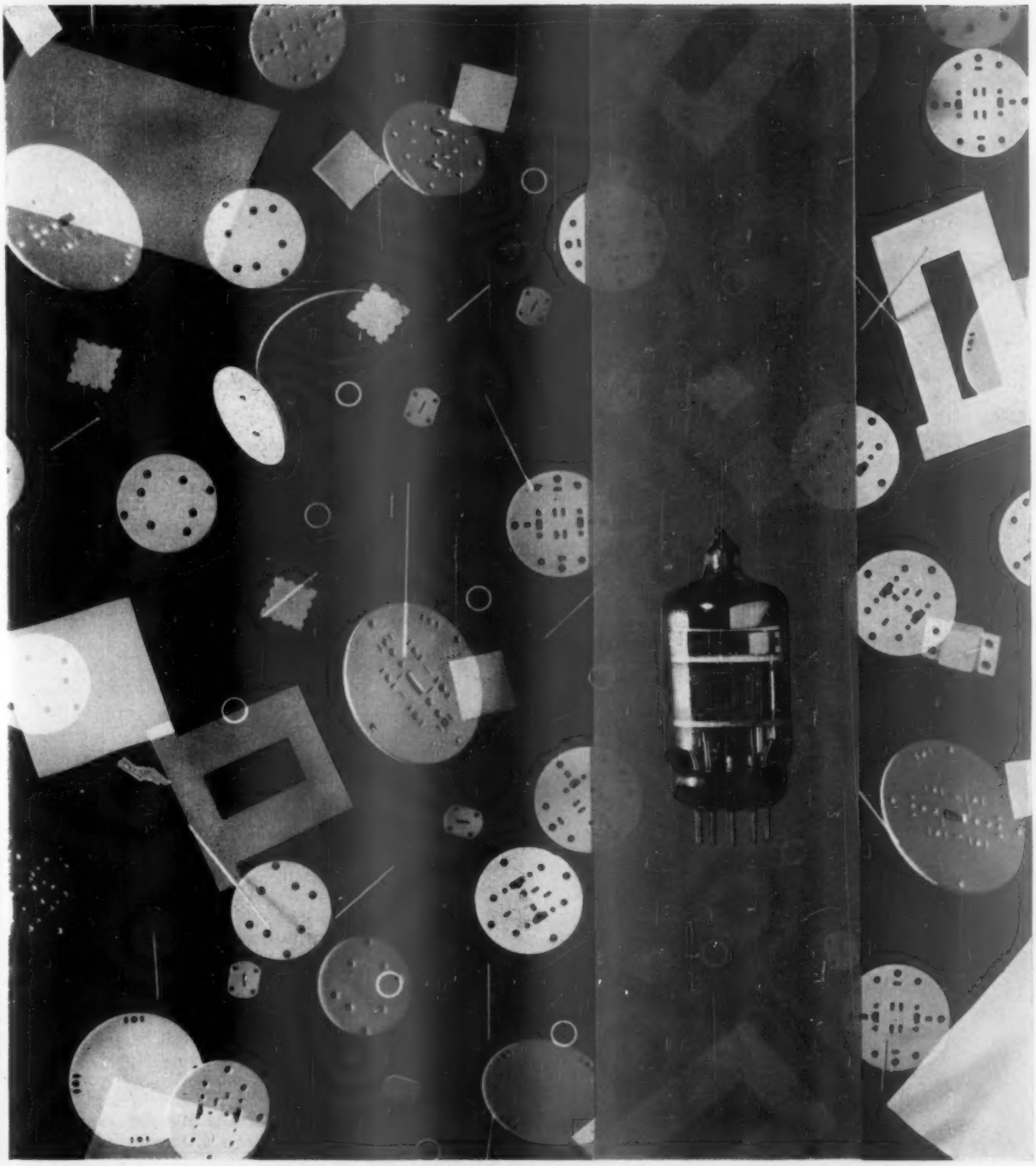
Caught in the Middle

But for Japan's business leaders, these are only minor problems. Along with the rest of the country, they have to face the broader dilemma of trying to live between East and West.

Japan, of course, has intimate ties with the West. Its businessmen have looked to the U.S. and Western Europe for the latest production techniques. Its government has a parliamentary system modeled on the Western pattern. Its political leaders know full well how much Japan relies on U.S. military power for defense against possible Communist moves.

Yet the opposition Socialists, representing 40% of Japanese voters, favor far closer relations with other Asian countries. Some of them go overboard in trying to see Red China and the Soviet Union in the best possible light.

• **Rearmament Problem**—In the question of rearmament, you get the crux of Japan's dilemma. The ruling Liberal-Democrats favor some military buildup to meet the growing threat of neighboring Red China. The Socialists, fearing a resurgence of Japanese militarism, re-



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nounce military force as an instrument of government policy.

The Kishi government, like the Socialists, dislikes U.S. military bases for their "infringement" of Japanese sovereignty. But if it eliminated these bases, the government still would find the Socialists opposing rearmament. That would mean a defenseless Japan.

Political Stability

On balance, Japan's present political stability rests as much on its economic well-being as on anything else. Unlike some other Asian countries, Japan industrialized fairly early—when there were no Communists to exploit the economic dislocations of building industry.

Since World War II, the Communists have made big noises. They have won over many intellectuals. They have penetrated SOHYO, Japan's most important union federation. But with few economic troubles in Japan to exploit, the Communists have not made significant headway.

Similarly, the peasant farmers are not likely to cause trouble. During the 1930s, they played along with the militarists. But, thanks to economic reforms during the U.S. occupation, most peasants now are landowners. They are rated as the most stable political force in the population.

• **Influences**—Japan's asset, above all, is its traditional stoicism. This attitude seems to drive Japanese toward hard work. They act as though they were racing against time to make good.

Still—as Japanese businessmen are fond of telling foreigners—Japan's future depends not so much on its own actions, but on outside influences. If world trade continues to expand, then Japan probably will be able to expand its overseas markets. But if a bad world recession should strike, Japan—with its industry so sensitive to outside forces—would be the first to feel it.

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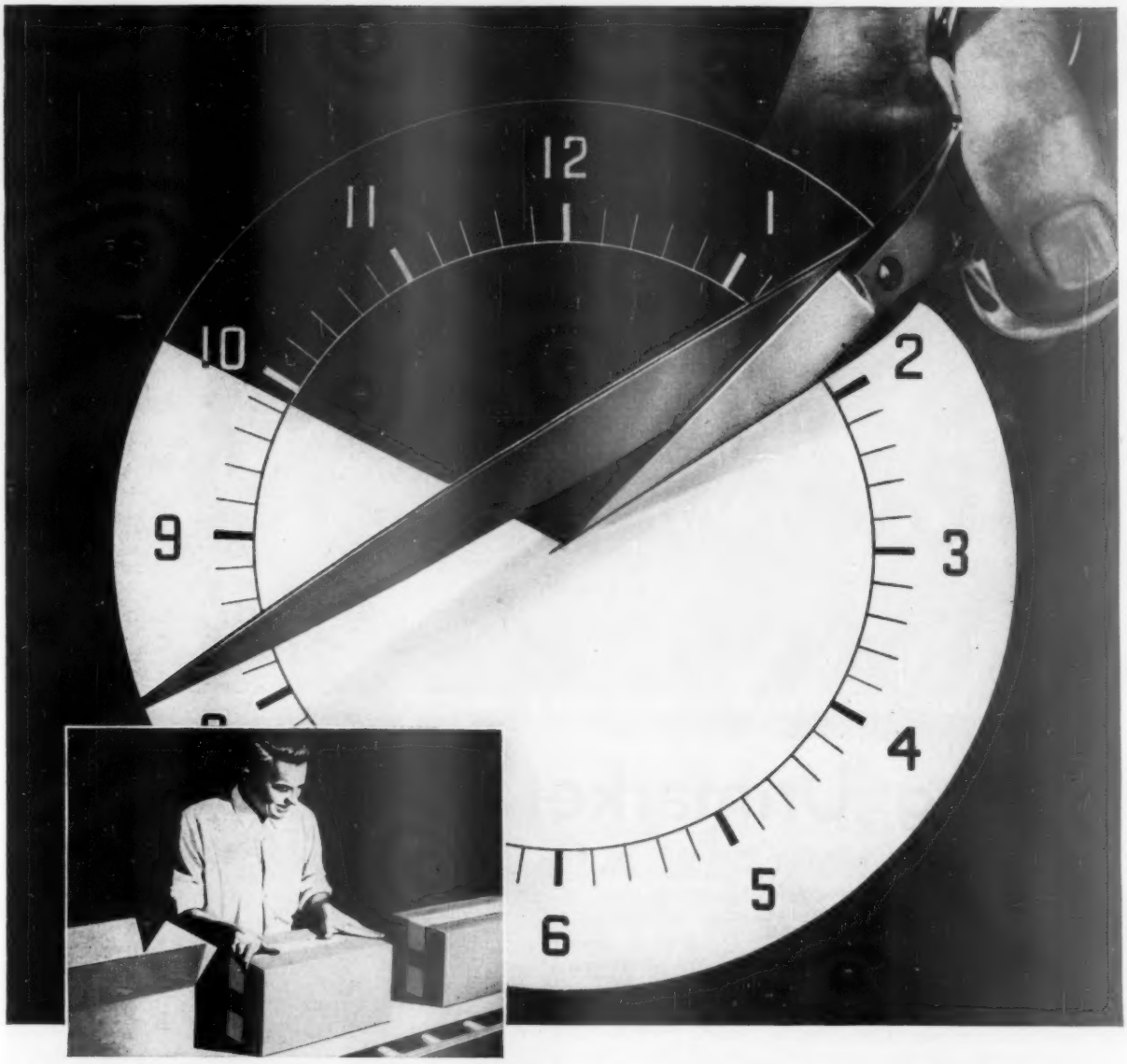

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MUFFLER PLANT of AP Parts Corp. in Toledo was expanded three times during construction to meet company's rising orders.

Selling 'Unmarketable' Products

Through aggressive merchandising, AP Parts found it could make consumers ask for and buy its mufflers and pipes.

The weird and wonderful automotive age has created a pile of business far beyond the walls of the car makers' factories. It has, for example, been responsible for the huge new plant above. It's in Toledo, Ohio, and belongs to AP Parts Corp., the world's largest producer of replacement automotive exhaust systems. It is, says AP Pres. Paul Putnam, "the largest and most modern pipe manufacturing and exhaust system warehousing plant in the world."

AP officials breathe a sigh of relief when they look at it. For the first time since the plant was started in 1955, AP has no expansion under way. Three times while the building was going up, the company added more space. Today, the sprawling, 720,000-sq.-ft. plant—almost four times the size originally planned—could handle 18 football games at once under its roof.

• **Spectacular Growth**—In a way, this plant that stretched in the course of building tells in concrete the story of the $5-billion auto replacement parts industry (BW—Mar.7'59,p88) in the past decade; but especially it tells the muffler and pipe story. In the past few years, muffler and exhaust systems have leaped from a position of relative obscurity in the total auto replacement parts market to a spot very near the top.

AP Parts has paced this growth. But while it credits the times with some of its progress, it also credits its own determination to merchandise products that not so long ago were thought practically unmarketable.

I. The Market

As recently as 1956, mufflers and exhaust pipes rated sixth in replacement parts. They bounded into second place in 1957, moved very close to the top in 1958. AP officials believe that in dollar volume they now rank first. Estimates place the replacement side of the muffler and pipe market at perhaps $270-million annually at wholesale.

• **The Big Three**—Three companies today account for an estimated 70% to 80% of this replacement market. They are AP Parts; Walker Mfg. Co., Racine, Wis.; and Maremont Automotive Products, Chicago. AP Parts has always been an important supplier of original equipment, and still is, but it has concentrated on the vast replacement field. Both Walker and Maremont, however, have product lines stretching beyond muffler and exhaust systems.

How much of a lead AP has is its jealously guarded secret. Officials will say only that its volume exceeds the $29.5-million total sales of Maremont in 1958 or the $41-million of Walker. One industry source estimates that AP has roughly one-third or more of the replacement muffler market. If that's true, annual volume would run around $60-million to $75-million.

II. Muffler Mushroom

"Two important growths," says AP Pres. Paul Putnam, "that have a direct relationship to our own growth are the tremendous increases in the registration of automobiles, their increased horsepower, and the resultant need for dual exhaust systems in the past few years." With some 58-million cars on the road, plus 12-million trucks, there's a replacement potential of close to 70-million vehicles.

• **More Mufflers Per Car**—"To make these figures even more important to us," says Putnam, "since 1952, between 8-million and 10-million of the cars produced have been equipped with dual

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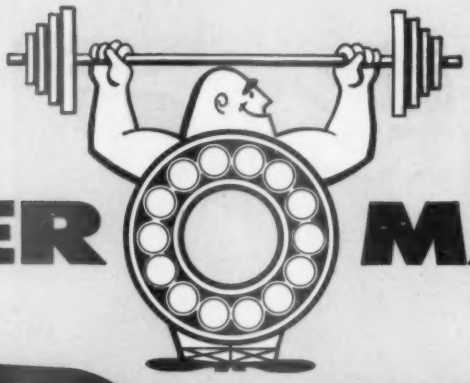

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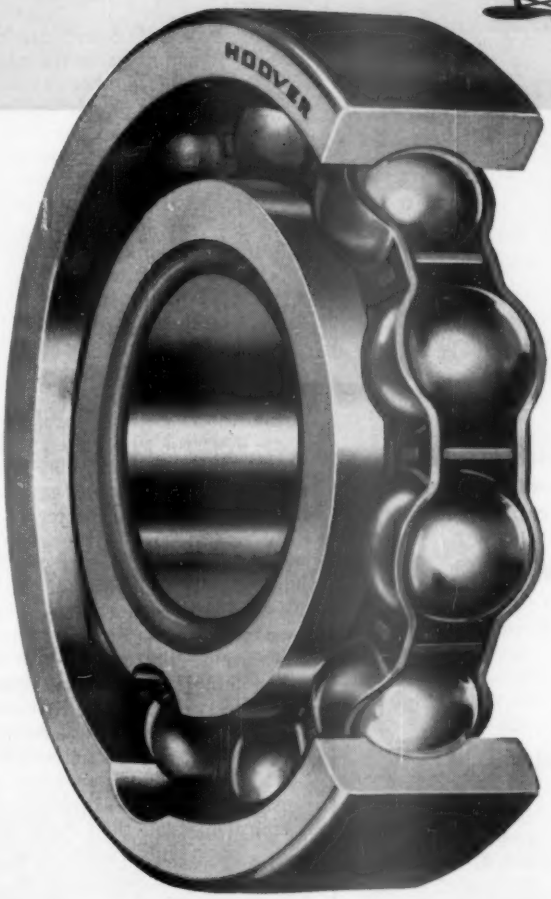

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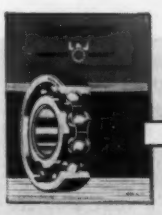

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☐ **BULLETIN 107** gives complete data on "Super Max" bearings.

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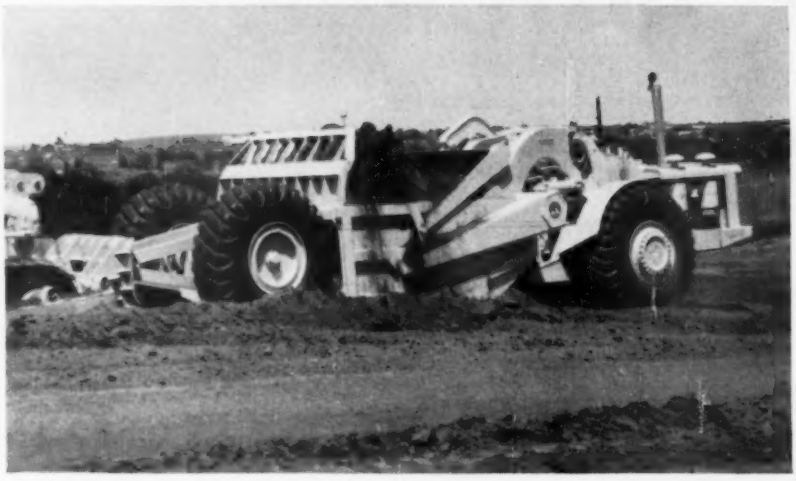

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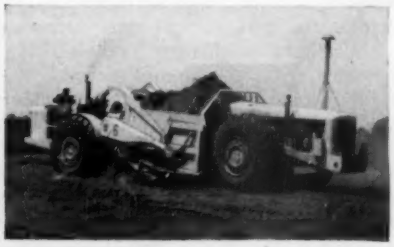

PRES. PUTNAM credits sales growth to aggressive selling, today's bigger cars.

exhaust systems." Some cars have four or even six mufflers or resonators.

Not only the number of cars but the number of types of mufflers and pipes required has risen spectacularly.

T. O. Ulmer, vice president for sales and marketing, cites the parts required to service Ford cars as an example. The 1935 to 1938 Ford—four model years of cars—required one muffler, one tail pipe, and two exhaust pipes—or four different exhaust systems. The four model years from 1955 to 1958 required 17 different mufflers, 45 tail pipes, and 25 exhaust pipes—or 87 different exhaust system parts."

• **Shorter Life**—The push for bigger, more powerful automotive engines has helped. AP engineers note that every time you burn a gallon of gasoline, more than a gallon of acid-impregnated water in vapor form passes through your car's exhaust system. Corrosion begins when this moisture condenses in the muffler. The higher horsepower engines of today have cooler exhaust gases than older cars because the engines use more of the combustion heat for power, and have larger water jackets that cool more efficiently. So exhaust gases are cooler and condense in the muffler more easily.

The high-octane gasolines produce much stronger acids because of their chemical makeup than fuels did a few years ago. Thus, more condensation takes place, and takes a much sharper bite at the metal.

Finally, today's driver travels pretty much under stop-and-go conditions. Short trips and much stopping means that the muffler doesn't normally get all chambers hot enough to keep the moisture in a vapor state; condensation occurs in the cold chambers.

"One oddity about the muffler picture," says Ulmer, "is that mufflers last

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Over 10,000 types of motors are available from Century Electric. There is one for every type of application and for any kind of operating condition—dusty, corrosive, explosive or moist. Century Electric sales engineers will help you select the right one. They don't have to rely on only a few types, like this standard squirrel cage motor, to do everything.

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New highways, schools, housing projects, waterworks, sewers and other public works—all bring with them the taking of a vast amount of private property for which "just compensation" must be paid.

Government officials responsible for acquiring these properties have a monumental task. They must acquire property at a price fair to both the property owner and the taxpayer. They must have competent appraisals available before negotiations can start with the property owner. And today there is a definite shortage of qualified appraisers.

Factors affecting value

The appraisal problem is by no means simple, even in the taking of such properties as farms or modest residences where data on sales of comparable properties are available. The appraiser must have the technical knowledge to take into account the distinctive characteristics which influence the value of each individual property. There are differences in the types of improvements and in the physical characteristics of the land. Some farm lands may be rolling, some level and well drained, while others may be marshy. Too, differences in the soil have an important bearing on value.

When only a portion of a property is taken, other complicating factors are involved, such as proximity damage, severance damage or denial of access.

A job for specialists

Industrial and public utility plants, golf clubs, churches and schools present difficult evaluation problems. Special economic considerations are involved and comparable sales are seldom available. Appraising such special types of properties requires appraisers with a thorough knowledge of construction and fixed equipment costs, since frequently the only available measure of value may be the cost of reproduction less depreciation and obsolescence.

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longer the more a car is used." Under today's driving conditions, a good muffler has an average life of about 18 months or 15,000 miles—except for taxis, where its life may run 70,000 to 80,000 miles. These are some of the reasons that spell shorter muffler life—and a bouncing replacement market.

III. Muffler Marketing

AP Parts was born Associated Parts, Inc., in 1928, and incorporated as AP Parts in 1933.

Its physical plant is impressive. The big new plant houses a highly automated exhaust and tail pipe manufacturing facility; a huge muffler and pipe warehousing area; a product engineering and car trial laboratory; shipping and traffic departments, and plant and production offices. In addition, its national headquarters is in downtown Toledo. It has a manufacturing plant in Grand Haven, Mich.; a pipe manufacturing plant in Los Angeles; a research and development center in Detroit, where AP engineers work with auto makers on exhaust system designs and problems. It has just opened a new plant in Toronto, and has 15 warehouses throughout the U. S. and Canada.

It sells original equipment parts direct to car factories. But its replacement parts go through wholesalers to some 100,000 outlets. One reason it concentrates on the replacement field, says Ulmer: "We have preferred to balance our sales so as not to become dependent on any one big customer."

• **Merchandising Drive**—Despite a steady growth over the years, when the big horsepower engines started coming out in 1950, AP Parts was a poor second in the replacement field, behind Walker. In 1953, AP took stock and decided to go into marketing in earnest.

"The heart of our new merchandising concept," says H. O. Stivers, sales manager, "was that mufflers can be sold—actually merchandised—to the motorist. The average driver does not have to wait until a cop or garage man tells him his muffler is shot."

Starting with that thesis, AP took a long look at the auto replacement parts dealer. "We found that while he was often doing a bang-up job selling other items, he was inclined to ignore mufflers." He did little but carry them.

• **Specific Aim**—Although it was then hotly courting the 39,000 car dealers and 87,000 auto repair shops in the U. S., AP took aim particularly at the 181,700 service stations—for several reasons. Service stations often have superior sites, close to traffic. Surveys indicate that the average motorist has his car in a service station 93 times a year. And, says Ulmer, the hefty 42% profit a station could make on mufflers and exhaust pipes could look good to an

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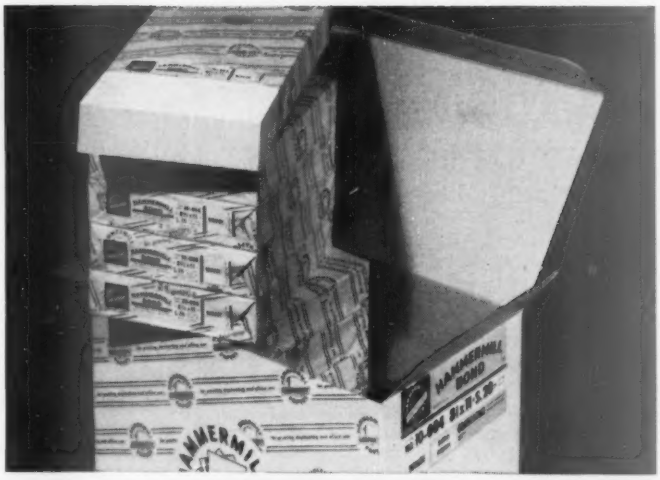

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operator who grosses only about 19% on gasoline, and 34% on parts, accessories, and oil.

"We began to impress on the trade the importance of inspecting mufflers and pipes when a car came into a station," says Al Joseph, advertising manager. "After all, next to a flat tire, a bad muffler is the easiest thing to spot." Another virtue in approaching service stations was that muffler installation is a relatively simple job. AP made the job easier by offering a special muffler remover tool and was the first in the market with this device, it says.

While pushing this approach through trade advertising, sales meetings, and the like, it developed the idea of the AP Muffler Specialist, with a special decal showing that the station was equipped for this business. It put on a drive for dealers to sign an AP franchise agreement, reinforced it with a steady stream of mailings, meetings, and sales conferences to keep franchise holders aware of AP products. As a result, says AP, more service stations sold AP mufflers last year than any other brand.

• **Instant Sales Booster**—A couple of years ago it tried another tactic: a big, inexpensive curbside sign. A survey has showed that not too many stations featured muffler service as they featured gas, lubrication, and such. The company built 100 test A boards, shipped them out. "Two weeks later," Joseph recalls, "we couldn't get the test models back. Sales increases on mufflers averaged from 50% to 300%, and sales of gas and other parts and services were up, too."

In 1957, AP introduced the 6-ft. signs to the trade at $16 each. Today there are over 30,000 of them out. Other muffler makers followed suit, and some brake manufacturers as well.

Today, many muffler makers advertise to the consumer. International Parts Corp., Chicago, has had a radio program for its Midas muffler for some time. AP is starting a radio news program on NBC this month. But AP says it has consistently outbudgeted other manufacturers in advertising dollars and was first to run full-page ads in consumer publications.

• **Gesture to Consumer**—Another dramatic gesture came out of the plant's corrosion control center. For years, dealers have complained that stocks of tail and exhaust pipes blight the look of their shops. Pipes often form a surface rust from moisture in the air. This does not hurt performance, but it is unsightly, and motorists mistrust it. AP, at a cost of several hundred thousand dollars a year, now coats all its pipes with a nonrust process, just to make them look better—at no increase in price.

AP is weighing another problem right now: whether to tackle systems for the small or foreign car.

THE MARKETING PATTERN

Who Spends, Who Saves, Why?

How much of their income do consumers spend, and for what, at any particular time and in varying circumstances? How much do they save, and just which of them do the saving? What major influences affect spending patterns? Do consumer buying habits change significantly over short periods?

In a high consumption economy such as ours the answers to these questions are important alike to businessmen and to the people who set national policy.

The latest attempt to find the answers is being directed by Irwin Friend of the University of Pennsylvania's Wharton School, backed by a grant from the Ford Foundation. A group of economists and statisticians from all around the country has been set to analyzing data gathered by the Bureau of Labor Statistics in a 1950 survey of 12,500 families in 91 cities. They are considering information gleaned by Life magazine in a 1956-7 survey also.

The first findings of the study team were presented last month at a Wharton School conference. Masses of facts and many learned papers were presented, but the conference was probably more important for its highlighting of the areas where much more study is needed than for any fresh light it threw.

Only a few definite findings were reached, and these generally could be classified as either obvious or debatable. Among the facts that emerged:

• People are spending considerably less on clothing than before.

• When a family buys a new car it spends less than it would otherwise on household furnishings—or at least it did in 1950.

• Windfall income is more likely to be spent than saved, if you can judge by the reaction of veterans who received an unexpected dividend on GI insurance in 1950. This point has been hotly debated; it is important in deciding whether a tax cut in a recession would result in more spending or more saving.

Papers presented at the conference delved into many esoteric aspects of the BLS data, but they left it abundantly clear that tremendous areas of consumer spending and savings have not yet been adequately explored. How much do people save, which income groups do what saving, which transactions do people consider to be saving?

It's pretty generally agreed that data on savings are a bit cockeyed. Thus it is felt that the projections to reach totals of savings in cash and bank deposits probably understate them by as much as $6-billion.

Then there's the question of whether some of what is now considered to be consumer spending should not be transferred to the savings column. Home mortgages are already included under consumer savings, and such experts as Friend argue that the time buying of such consumer durables as appliances should get the same statistical treatment. Consumers themselves think of the longer-range installment buying as a form of saving, according to one paper presented at the conference. If that attitude proves to be general, businessmen might find it wise to gear their sales campaigns to "save a refrigerator" rather than "buy" one.

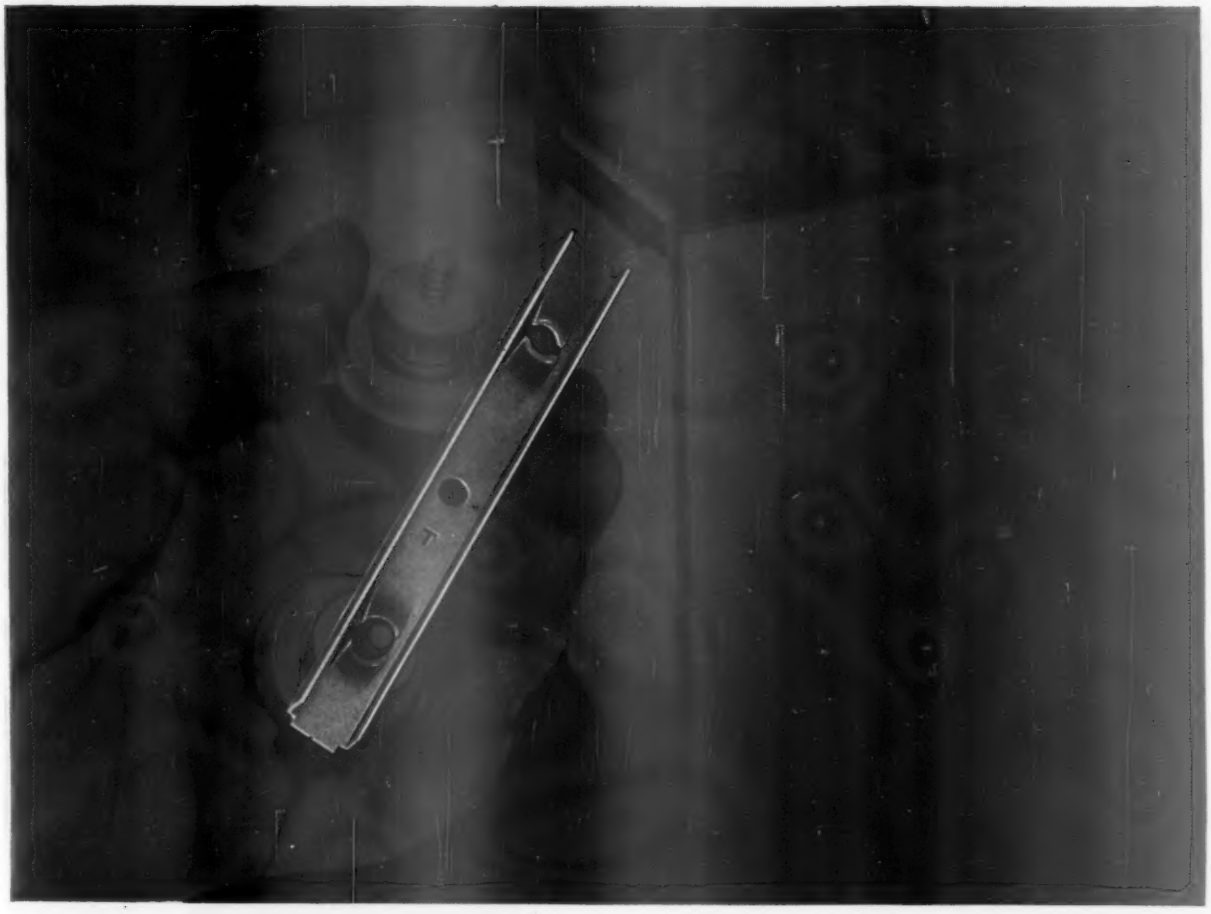
One field that needs much more spading is the effect on spending habits of family composition—how many children, age of the chief wage earner, income group of the family unit. A good deal of work has already been done but much remains to be done before business achieves the ability to forecast, which General Electric's Vernon G. Lippitt calls "the ultimate test of the usefulness of our knowledge."

For the conference results as a whole, the feelings of many were rather well summed up by Ruth Mack of the National Bureau of Economic Research, when she described the available consumer data as a "harvest" that unfortunately is causing "stomach aches." Urging the economists and statisticians to find "what is the real food we need," Miss Mack suggested three major areas of investigation:

• Trends in savings.

• The role of consumer inventories of various commodities and how changes in those inventories influence consumer buying.

• The role of price sensitivity in consumer behavior.



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First, the saving in material on the General Electric Dishwasher... a Tinnerman SPEED NUT brand fastener is formed right in a channel stamped from high-carbon spring steel. This replaces a costly solid steel bar formerly used to mount the pull-out basket rollers.

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General Electric's dishwasher production goes faster and assembly costs are reduced by the easy-to-apply feature of the simplified SPEED NUT part. The difference in weight even makes an important reduction in freight costs on each carload shipment of dishwashers.

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In Marketing

• • •

Blister Packaging Expects to Be A $12-Million-Plus Business by 1962

Blister packaging (picture), little known five or six years ago, is now a $6-million business for companies supplying transparent plastic. By 1962, the market will at least double.

This was the prospect offered by E. W. Ward, marketing director of Celanese Corp. of America's Plastics Div. at the American Management Assn.'s packaging exhibition in Chicago this week. Celanese is the country's largest producer of acetate plastic, the material, it says, most widely used in blister packaging—though butyrate and vinyl are also used.

Ward finds two grounds for optimism. New automatic packaging machinery is encouraging manufacturers of such items as flashlight bulbs and razor blades to use it. And industrial producers such as makers of automotive spare parts are taking it up. The government's insistence on a package that can be visually inspected without opening is another break.

For the self-service store, the package has clear advantages. It makes pilferage of small items tougher, and gives customers a good look at what's inside.

• • •

Accessories Maker Takes a Short Cut To Diversify Into Men's Slacks Market

Hickok Mfg. Co. is expanding its lines—via the licensing route. This maker of men's belts, jewelry, and accessories has signed up a new company, Sirkin & Davis, Inc., to make men's and boys' slacks under the Hickok name—its first such venture in the U.S.

Many companies—such as Fruit of the Loom and Walt Disney Productions, to name just two—have found licensing a good way to diversify painlessly (BW—Oct.27'51, p140). **Its primary advantage to the licensor is that it brings added volume without heavy capital investment.** For the licensee, it means selling a product with an established brand name. Hickok will back up the Hickok slacks with a generous advertising program.

The licensing agreement includes a minimum guaranteed retail markup of 44%. Besides this incentive, the retailer stands to benefit, too, from Hickok's coordinated advertising program.

Slacks looked like a good bet to Hickok because, for one, they tie up well with belts. Another reason was that they reach a growing market. Hickok cites the U.S. Census Survey of the Apparel Industry to show that production of separate trousers—sports and dress—came to almost 113-million pairs and $423-million in 1957, against 77-million pairs and $369-million in 1954.

• • •

Plumbing Wholesaler Charges Competitors With Conspiring to Cut Off His Supplies

A plumbing and heating wholesaler has filed an action in the common pleas court in Cuyahoga County, Ohio, charging that competitors and suppliers have conspired to cut off or limit his supplies of certain equipment.

The petition, filed by attorney Moses Krislov on behalf of Martin A. Baff and Martin Metal Co., charges **that "defendants . . . disparaged the plaintiff in the conduct of his business, informed such manufacturers that plaintiff is not a true wholesaler and does not carry a stock of merchandise on hand."**

The plaintiff claims this injured his business. Baff is seeking damages and an injunction to prevent further actions by the defendants, which include American Brass Co., Bridgeport Brass Co., Rudisill Foundry Co., and others. The claim is that the actions charged violate the Valentine Act of Ohio, which regulates business practices.

Martin Metal disclaims the title of discounter, but it operates with a low overhead, and has been underbidding competitors.

• • •

Marketing Briefs

Earnings of R. H. Macy & Co. hit $6,614,000 for the 52-week period ended Nov. 1, 1958, rather than $2,328,000 as incorrectly stated in last week's list of top 20 retailers (BW—Apr.11'59,p45). Sales for the same period were $457,714,000. Current fiscal year figures are not yet available, but company officials report improvements in both sales and earnings over the previous year.

Shoe prices are climbing. Both International Shoe and Brown Shoe are raising prices from 3 to 5%, following a rise in leather prices. Some retail price hikes will result, but retailers are taking them in their stride. They say sales of new fall lines are running 15% ahead of last year. Henry Rand, International Shoe's president, foresees further price rises unless the hide market softens.

A guaranteed profits program is Adam Hat Manufacturers' lure to approved retailers who will carry—and merchandise—Adam Hats for the first time this fall. Adam will guarantee such a retailer a 20% dollar increase in sale of popular-priced felt hats or will credit him with an amount equal to double his net profit on the difference. For the purpose of the guarantee, net profit is set at 5% of retail sales.

Penn Fruit Co. continues its expansion program (Dec. 24'55,p45) in its home area in New Jersey and Pennsylvania. It purchased three Safeway stores, the oldest of which is four years old. All are within easy reach of Penn Fruit's big warehouse in Philadelphia.

GM Board Heads for Big Shifts

These two men will guide GM through changes in its board.

Frederic G. Donner, chairman, heads finance group.

John F. Gordon, president, heads executive committee.

At 3 p. m. on Monday of last week, a professorial-looking man in gray took his place at the head of a long table on the top floor of a 26-story building at 1775 Broadway in New York City. He was Frederic G. Donner, chairman and chief executive officer of General Motors Corp.; and as he opened the regular monthly meeting of the board of directors, four portentous facts made it almost certain that within a few years, he would face vast changes.

These four signs of change:

• At 57, Donner is younger than all but four of the 33 men entitled to sit at that table.

Board has 12 from management—some near retirement.

L. C. Goad, executive vice-president, automotive and parts; 58 this year, 13 years on board; finance, executive.

George Russell, executive vice-president, finance; 54, on board 3 years; on finance and executive committees.

James E. Goodman, vice-president for Body & Assembly Group; 55, on board 1 year; executive committee.

Roger M. Kyes, vice-president, GMC Truck, Dayton, Household Appliance Group; 53; 5; executive.

Also: T. H. Keating, vice-president, car divisions; 65; on board 5; executive. Carl H. Kindl, vice-president, Overseas & Canadian Group; 64; 8; executive. R. Samuel McLaughlin, vice-president; chairman, GM of Canada; 88; on board 41. C. R. Osborn, vice-president, Engine Group; 62; on board 8; executive committee. Sherrod E. Skinner, vice-president, Accessory Group; 63; 8; executive committee. Charles G. Stradella, president, GMAC; 61; 5.

Du Pont men will resign when du

Walter S. Carpenter, Jr., du Pont board and finance chairman; 71; on GM board 32; finance committee.

Emile F. du Pont, du Pont board, finance committee, employee relations director; 61; on GM board 4 years.

Other members of GM board are:

Harlow H. Curtice, retired president; 66; on board 19 years; finance committee.
Charles E. Wilson, former president; 69; 20.
Edward F. Fisher, of Fisher & Co.; 68; 17.
Henry C. Alexander, chairman of J. P. Morgan & Co.; 57; on board 10; finance.
Graham F. Towers, Canadian banker; 62; 1.

to Meet Changing Auto World

• In Chicago, probably before the end of the year, a federal judge will render a decision that will result in the resignation of four of the most influential and interested men at that table—one of them younger than Donner.

• A type of motor car new to General Motors and the U. S. automobile industry will appear in the fall, radically affecting marketing concepts that have existed for decades.

• Some miles downtown from 1775 Broadway a federal grand jury is hearing arguments that imply rather strongly that General Motors is too big for the welfare of the country.

Their portent is this: Frederic G. Donner, and the man who sat next to him at the table, GM Pres. John F. Gordon (cover), now 59, likely will preside over the formation of a board of directors of a different character, and over the elevation of a team of managers to posts of new responsibilities.

• **Ultimate Power**—How the changes come is especially important to GM, for it has been the guiding precept for nearly 40 years that the ultimate responsibility for the conduct of General Motors' affairs lies in the board of directors. This proposition has two corollaries: The board is responsive to the owners, so large shareholders should have seats on the board and a voice in policy; and this, too has prevailed for nearly 40 years. The board should also have room for policymaking executives until age 65, and for some exceptional retired executives until age 70 (the age limits have been imposed in the past 15 years).

Of the 33 directors, four are officers of E. I. du Pont de Nemours & Co., the largest (23%) single holder of GM stock, which by court order must give up voting rights (the Chicago proceedings are to determine the method). After the court has handed down its ruling, the four directors will then

Pont can't vote its stock.

Lammot du P. Copeland, du Pont vice-president and director; 54 this year; on GM board 15 years; finance.

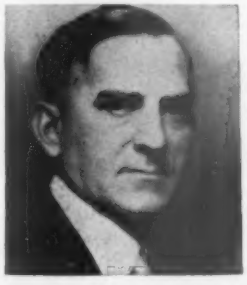
Henry B. du Pont, du Pont vice-president and member of board of directors; 61; on GM board 21 years.

Lucius D. Clay, chairman, Continental Can Co.; 62; on board 8; finance committee. Lewis W. Douglas, chairman, Mutual Life Insurance Co. of N. Y.; 65; on board 15. William Whiteford, Gulf Oil Corp.; 59; 3. George Whitney, director of J. P. Morgan; 74; on GM board 35 years; finance.

Large shareholders also get seats—three are 80 or over.

Charles S. Mott, holder of about 2.4-million shares, and former vice-president; 84; on board 42 years.

Alfred P. Sloan, Jr., honorary chairman, holder of 1.29-million shares; 84, on board 41 years; finance.



John L. Pratt, holder of about 640,000 shares; retired vice-president; 80; member of board 36 years.

Donaldson Brown, retired vice-chairman, holder of about 415,000 shares; 74, on board 39; finance.

Other large shareholders on GM board are: Richard K. Mellon, chairman of Mellon National Bank & Trust Co.; holder of about 240,000 shares; 60 this year; member of GM board for 11 years. Albert Bradley, retired chairman; 100,000 shares; 68; 26; finance committee. Lawrence P. Fisher, of Fisher & Co. (real estate); 86,000 shares; 71; 35. Ormond E. Hunt, retired vice-president; 72,000 shares; 76; on board 25 years.

SHAVING PEAKS AT PEOPLES GAS
with Pritchard's LPG storage plants

Just a row of pipes. That's all you can see of the LPG peak shaving plant J. F. Pritchard & Co. has built for The Peoples Gas Light and Coke Company at its Calumet terminal. Yet, insignificant as it may appear, this plant and another Pritchard has installed at the company's Crawford terminal have added 2,400,000 gallons of underground capacity to the LPG storage systems operated by this Chicago utility.

Pritchard has built more than 80 peak shaving plants with a capacity of over 40,000,000 gallons of LPG for firms all over the country. Other Pritchard specialties for the gas industry: compressor stations, dehydration plants, gas conditioning and treating plants.

But Pritchard specializes in more than the mere construction of facilities. Pritchard has the experience and staff to render a complete service—from the planning stages to the final construction of a turnkey job. Economic surveys, preliminary engineering, and procurement are examples of the range of services Pritchard offers.

Regardless of the size of your next job—if it's in the gas industry—it will pay you to talk to Pritchard.

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". . . the executive committee is to run the show—the finance committee is to control the purse . . ."

GENERAL MOTORS starts on p. 142

resign. Four others are 80 years of age or older, and within three years seven more will fall within the prescribed age limits for retirement.

• **No Set Rules**—There are no hard-and-fast rules on who should fill the seats of any members who die or retire in the future. Fred Donner, whose views would be important on new candidates for board membership, does not believe in such rules.

"The last thing any company wants to do," he says, "is to make rules about who should be on the board."

Still, say other students of corporate structure, there must be some criteria for board members. And when du Pont's 63-million shares are dealt out to many owners, when the aging men on the board die or retire, Fred Donner and Jack Gordon will have the opportunity to determine, at least tacitly, what kind of board they can best act in concert with—one largely of "public" members, one largely of principal shareholders, one largely of men active in GM management, or a combination such as has been so successful down through the years.

I. From Promoter to Organizer

The "modern" General Motors Corp. dates from October, 1920, when the du Ponts, to protect a $25-million investment in stock, first took an active hand in its management. Even before that, the du Pont company and several of its executives had for several years had large stockholdings in GM, with six seats on the board of directors, and five men on the seven-man finance committee of the board.

Under this arrangement, the financial affairs of General Motors had been handled by the du Ponts, but operations had been left almost unhampered in the hands of the founder, William Crapo Durant.

• **Crisis**—Durant was one of the greatest business promoters the country has ever known, and had a truly original concept in integrating supply companies into the auto producing firm. But he also was an inveterate stock speculator, and in 1920 pledged his GM stock (the controlling interest) for loans to finance his market dealings.

His investments soured, and the du Ponts faced the alternative of rescuing Durant or seeing his stock turned loose on the market at distress prices. In collaboration with J. P. Morgan & Co., the du Ponts paid off Durant's loans. Then, at the insistence of both the du Pont company and J. P. Morgan, Pierre S. du Pont became president and chief executive officer of General Motors. He found a corporate shambles.

• **Everybody on His Own**—The GM executive committee consisted mainly of the presidents of the operating divisions. There was no central financial or policy control. The division presidents set prices independently of each other, and had complete authority over inventories and income—as a later president said, an example of too much decentralization.

This executive committee was a back-scratching group; one division president would barter his support for another's pet project in return for support of his own. Durant seldom bothered to tell anyone, even his executive committee, what he was up to. (In that gentler, more courtly age of trust among equals, the du Ponts declined to inquire into Durant's market operations and were shocked to their toes when the debacle of October, 1920, occurred.)

Durant had two principal assistants—John Lee Pratt, who had been with du Pont for 14 years before joining GM in 1919, and Alfred Pritchard Sloan, Jr., who had come up through the supply companies that Durant had acquired. Sloan was so distressed at Durant's careless regard for the organization of the business that by 1920 he had about decided to quit. Before he did, however, the du Ponts took over.

• **Contributions**—Pierre du Pont reorganized the executive committee and the finance committee—with a majority of du Pont people at first, but later adding GM men. As Durant's replacement on the finance committee he brought into General Motors from du Pont the man who later originated many of GM's financial concepts, Donaldson Brown.

Du Pont executives today, reflecting on their long association with GM, feel their company's principal contributions to the growth of the auto company was to give it (1) "financial genius"—through John J. Raskob, who originally persuaded du Pont to invest in GM and was chairman of the finance committee, and Donaldson Brown and (2) "financial prestige"—by getting Wall Street's most important house, Morgan, to invest in GM at a time when conservative bankers shunned the auto industry.

• **Sloan Moves Up**—There was another contribution which, as the course has run, may have been more important: recognition and endorsement of the management concepts of Alfred Sloan. Sloan had drawn up an organization plan in 1920, but Durant ignored it. Pierre du Pont got board approval for it late in 1920. In the next few years he put much of the corporation's operations under the plan's creator.

In 1923 Pierre du Pont resigned as president and chief executive officer (he continued as chairman for a number of years), endorsing Sloan as his successor. "Experience during the years 1921, 1922, and 1923," du Pont wrote, "indicates clearly that he is entirely capable in every way." Sloan then was 48 years old; General Motors' sales in 1922 were $494-million; in 1923, $698-million.

II. The Generation of Founders

The Sloan management concept has been over-simplified in definition as the staff-and-line system. Actually, its core is unification of policy in committees consisting of members of the board of directors.

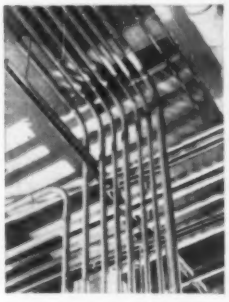
The executive committee is, as one man puts it, "to run the show." It has always been composed of the corporation's top executives—which presupposes their sitting on the board. The finance committee is to "control the purse." The majority of its membership is from the "outside" directors, principally large shareholders, with the du Ponts prominent.

With these committees unifying policy, fundamental objectives can be coordinated—long-range product plans, long-range marketing plans, long-range capital investment plans and—the real reason for GM's success—the long-range development of management.

• **Philosophy, and Carrots**—Sloan once defined his management philosophy for General Motors in this manner: "To divide it into as many parts as consistently as can be done, place in charge of each part the most capable executive that can be found, develop a system of coordination so that each part may strengthen and support each other part; thus not only welding all parts together in the common interest of a joint enterprise, but more importantly developing ability and initiative through the instrumentalities of responsibility and ambition—developing men and giving them an opportunity to exercise their talents, both in their own interests as well as that of the business."

Someone once irreverently defined this as the "carrot-and-stick" technique. But even Sloan's more genteel expression, "opportunity to exercise their talents . . . in their own interests" packs as much wallop for GM executives. For the "interests" involved are bonuses of GM stock for good performance. And this is one reason for GM's aging board members.

• **Vested Rights?**—The oldest of the men are of the generation of founders, Sloan's contemporaries or men brought



18th Century City ...20th Century Protection

Colonial Williamsburg is known as an 18th century city . . . but it has a sound and seasoned 20th century approach to the problems of construction, safety, and maintenance. The yardstick applied in every purchase is not, "How little does it cost?" but "How well will it serve?"

This attitude is understandable, as the construction aim is to duplicate the original long life of the structure and all its parts . . . the safety aim is based on the fact that fire would destroy irreplaceable antiques . . . and the maintenance aim is to avoid the destruction of restored floors and walls.

These standards also apply outside the restored area, in the new and modern Motor House and Cafeteria—the latest move in the corporation's continuing attempt to accommodate a flood of visitors that is approaching the million mark annually. Over 22 miles of SPANG Rigid Steel Conduit, in sizes from ¾ to 4 inches, and over 11 miles of SPANG EMT Tubing, in sizes from ½ to 1 inch, were installed.

SPANG Conduit is made in a National Supply plant that is the outgrowth of the oldest operating pipe mill in the nation. It utilizes the strength, durability and dependability of steel to provide the maximum degree of mechanical protection and electrical safety. It automatically establishes a positive, continuous ground for all parts of the wiring system, and shields the wiring from any external or internal destructive forces, both during building construction and throughout the useful life of the structure.

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Subsidiary of Armco Steel Corporation

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up under his tutelage—and also the earliest beneficiaries of GM's stock bonus plan. (However, C. S. Mott and the Fishers got much of their stock when their businesses were bought by Durant.)

But where does that put them today? Who now are Donaldson Brown, John Lee Pratt, Albert Bradley, O. E. Hunt, Sloan himself? Are they to be thought of as former executives—who could be asked, with frankness and equity, to step down? Or are they essentially large shareholders entitled to claim a place on the board? Their stock interests are very large, ranging from Hunt's 72,000-plus shares up to Mott's 2,458,000.

III. The "Detroit Crowd"

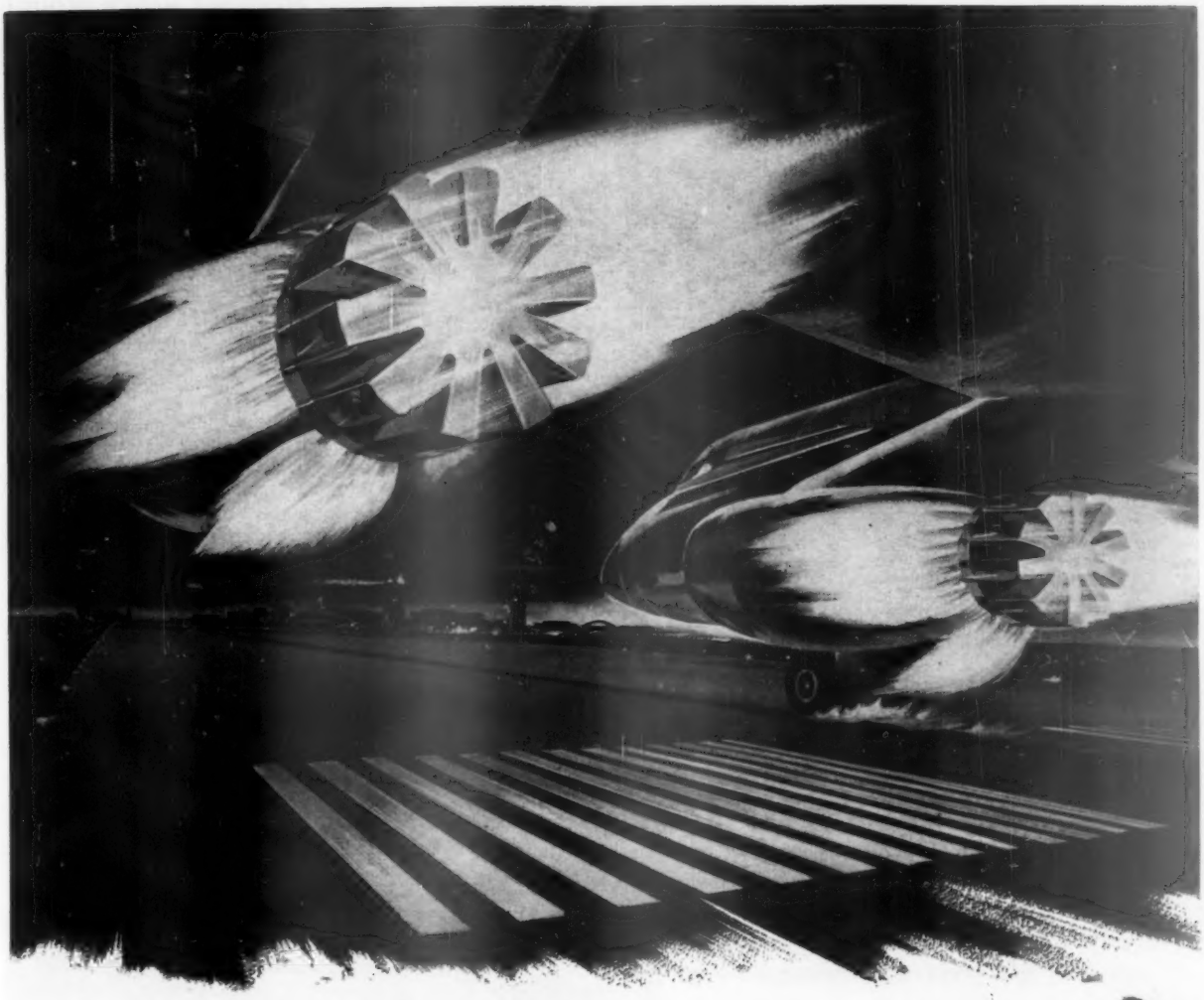
During Sloan's tenure as chief executive, from 1923 to 1946, the men were developed who brought the corporation to greatness. They were auto men, not finance men; they were "Western," not "Eastern." The sheen of sophistication and finesse that rubbed off from the 100-year-old du Pont company onto the early GM managers gradually was dulled by the hard-driving, competitive abrasiveness of the "Detroit crowd."

The change began to take effect in 1937. According to the memory of one former GM veteran, the rise of the unions in the auto plants was something the Eastern-oriented executives could not adapt to. The old-line production men, principally the Fishers, insisted before the other directors that General Motors had to have on the spot in Detroit a top executive who could talk to the union in production terms.

• **Knudsen and Wilson**—Lammot du Pont, who had succeeded Pierre as chairman, stepped down, enabling Sloan to take over the chairmanship while continuing as chief executive officer. Into the presidency and the responsibility as chief operating officer went one of the industry's most respected production men, William S. Knudsen.

When Knudsen moved into government three years later he was succeeded by his deputy, Charles E. Wilson. At the end of the war, during which GM had waived its retirement rules, Sloan, then 70, wanted to start a "youth movement" on the board and asked leave to resign; presumably, others would have followed his example. But instead he was retained as chairman, and Wilson was elected chief executive.

• **Organization Sense**—Wilson, according to one director of long influence, had a strong organization sense. Wilson once explained it this way: "The man must be given an opportunity to develop. . . . To give men such opportunities requires a conscious effort on the part of management to move people around in different assignments. The idea is 'to



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first to withstand 1500 F blast from jet "braking" mechanism!

WHEN today's airliners roar in for a landing, they depend on a reverse-thrust mechanism to act as a "brake" by diverting the searing jet blast as they hit the runway.

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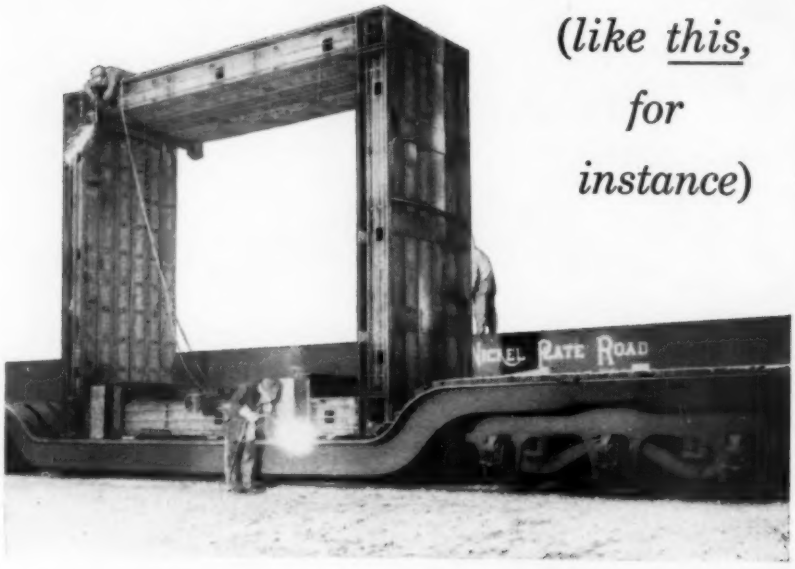

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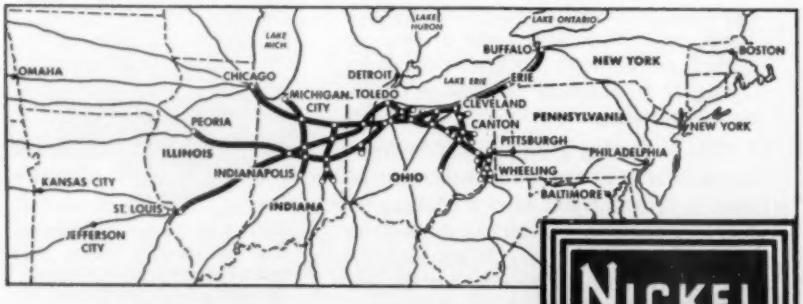

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". . . Harlow Curtice brought the GM generation of founders to a close . . ."

GENERAL MOTORS starts on p. 142

get as many good horses into the race as possible'—how many moves can be made rather than how few."

His chief contribution was to layer in—between the chief executive and the group vice-presidents—four executive vice-presidents. Formerly about 17 men had reported to Wilson. Now there were just the four.

• **Crown Prince**—Wilson also restored a post that had been absent for years—the chief-of-staff who coordinated and directed the work of a cadre of vice-presidents concerned with such across-the-company matters as distribution, research, engineering.

The General Motors management concept deplores and disparages the creation of a "crown prince." Although Sloan had been Pierre du Pont's chief-of-staff and Wilson in effect had been chief-of-staff, that post had never been intended to guarantee succession to the top job. But, when Wilson reconstituted the post, it did; for into it went one of the most remarkable of the many remarkable men the GM system has produced: Harlow H. Curtice.

IV. Organizer to Promoter

Harlow Curtice, while one of the generation of founders (he went to work in 1914 at AC Spark Plug), in the opinion of some students of GM, really brought that generation to a close. Under him all power was concentrated in his executive office. He definitely was in full control.

He never filled his own former post of chief-of-staff. He says he consulted with everyone and listened to everyone, but that it was his responsibility as chief executive officer to make the decisions. In the du Pont-Sloan lexicon, the financial policy committee had been the top group, with veto power over all decisions involving the corporation's funds. Curtice regarded it as existing to provide him with funds for what the operations policy committee—that is, the executive committee, of which he was chairman—had decided was best for the corporation.

• **Urge to Sell**—Curtice still speaks in glowing terms of Billy Durant. In at least one respect the two were alike, in the estimate of a man who knew both. They both were imbued with an unrestrained urge for higher sales. To Curtice it would be a betrayal of trust not to use all the resources of the corporation to attain higher sales. He expressed disinterest in the fate of any

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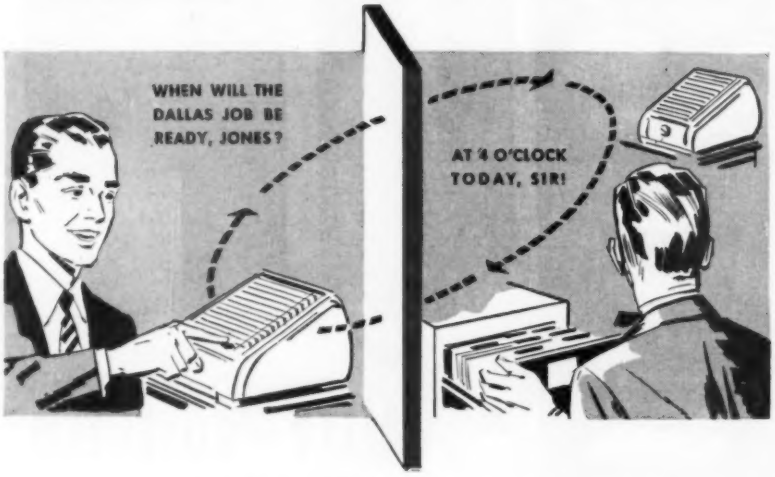
How to get more working minutes per hour!



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competitors, saying his concern was General Motors.

Radiating confidence in the proficiency and products of General Motors, Curtice preached the doctrine of expansion in capacity and in the size and ornateness of cars. To him, styling was all-important. It was, he said recently, his single most important job as chief executive officer of GM.

With his physical stamina, mental quickness, dedication, and unrestrained competitive drive, Harlow Curtice put his mark on General Motors and the automobile industry in a way few men had done before him. He revitalized and expanded GM's overseas operations in time to catch the swell of the rising European market. Under him, GM achieved its highest dollar sales and profits in 1955.

• **Washington Spotlight**—General Motors also achieved wider attention in Washington than it ever had before.

Many of Curtice's Washington appearances—and he made more of them than any of his predecessors—did not concern GM alone; such a case was the investigation of dealer complaints that led to the "good faith" and price-tagging laws. But it was GM's share of the market that first caught the unfriendly eye of the government attorneys and labor-leaning Democrats.

And all of the furor in Washington threw the spotlight right on the size the competitive power of GM.

• **Distressed Oldsters**—This distressed the old generation of GM directors and its largest stockholder, and Curtice's influence inside the corporate structure distressed them even more. Under him the stakes in success—more plants, more sales, more profits—became too enormous to risk wide-ranging shifts in management without being absolutely certain the man being moved in was equal in that particular job to the one being moved out.

There was a feeling among the older generation that Curtice, as a result, didn't keep up the promotion process in the organization, didn't develop the promising men by moving them up to places of greater responsibility—that, in Wilson's old phrase, he didn't get enough horses into the race.

• **The Record**—Still, Curtice did find and move up exceedingly talented younger men: E. N. Cole at Chevrolet, S. E. Knudsen at Pontiac, P. J. Monaghan at GMC Truck and Coach, all in their 40's, and a host of parts division general managers in the same age bracket.

Curtice during his five-and-a-half-year tenure selected two group vice-presidents—Thomas H. Keating (cars) and Roger Kyes (GMC and appliances). He installed only one new executive vice-president, Ivan L. Wiles, who retired for illness before Curtice left office. Wil-

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the kind of modern comfort that brings guests back . . . a private thermostat on the wall

Honeywell Pneumatic Round—This wall-mounted thermostat represents only a tiny fraction of your air conditioning investment.

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For new or existing hotels. Get complete information by calling your local Honeywell office. Or write Minneapolis-Honeywell, BW-4-39, Minneapolis 8, Minnesota.

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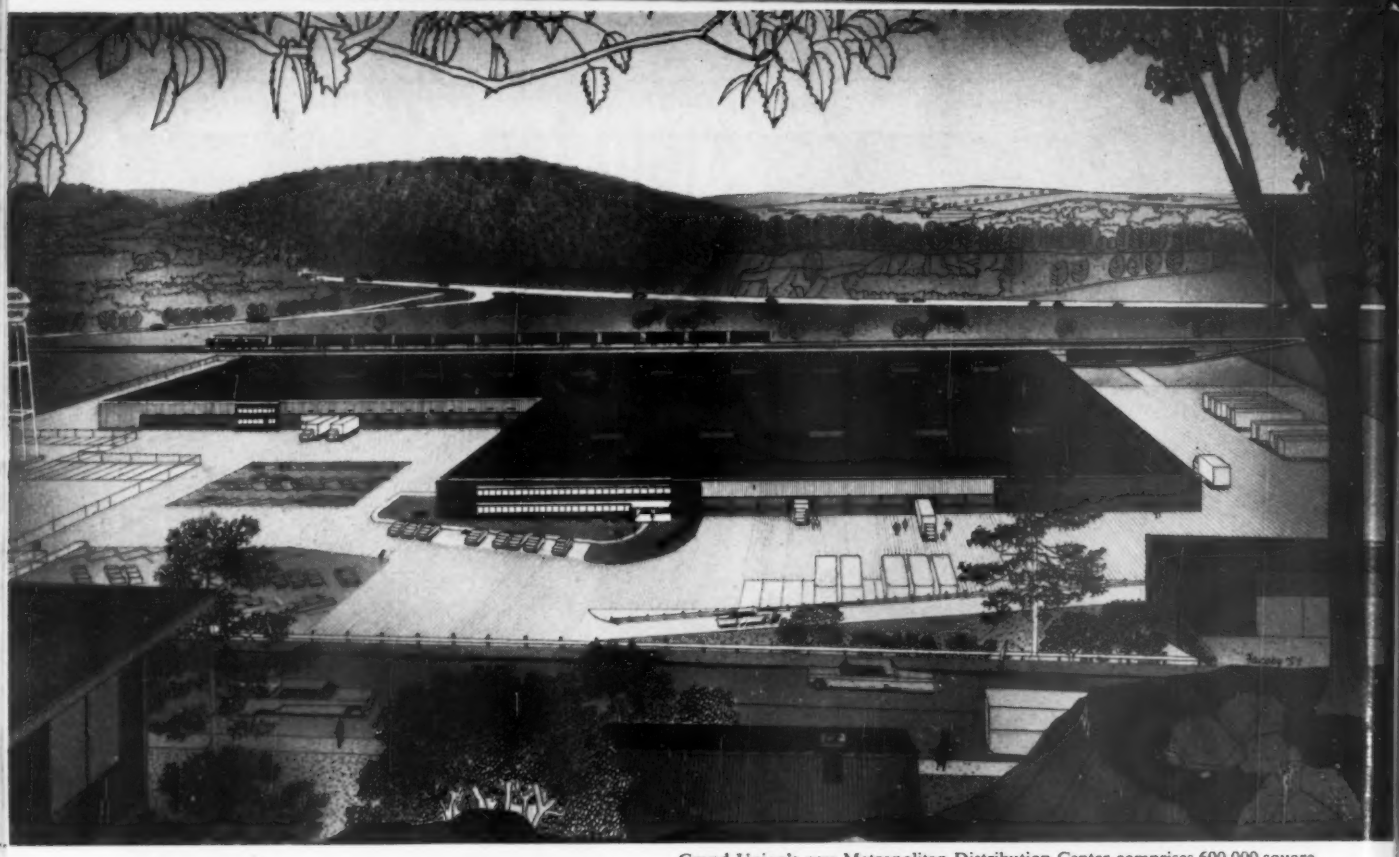

Grand Union's new Metropolitan Distribution Center comprises 600,000 square feet of space. The 30-acre site was found with the help of the New York Central.

"Checks out O.K." said Grand Union when the Central suggested Mt. Kisco, N.Y.

Some time ago, the Grand Union Company was looking for a suitable building site for what has turned out to be one of the largest supermarket distribution centers in the East; and which today supplies more than 100 Grand Union supermarkets in the Greater New York Area.

To help in this project, Grand Union management called upon New York Central Plant Site Consultants. Careful analysis led the Central to recommend a 30-acre site in Mt. Kisco, N. Y. This was close to the center of Grand Union's activities and right on the main line of the New York Central, convenient for both rail and highway transportation.

If you are on the lookout for plant site opportunities for your company, you'll find that New York Central can be of real help.

The Central's plant site consultants will draw up plant site appraisal reports tailored to your type of operations. If you wish, they will also expedite plant construction and enlist community co-operation—all on a confidential basis and without charge.

Whatever your special needs, New York Central stands ready to assist you.

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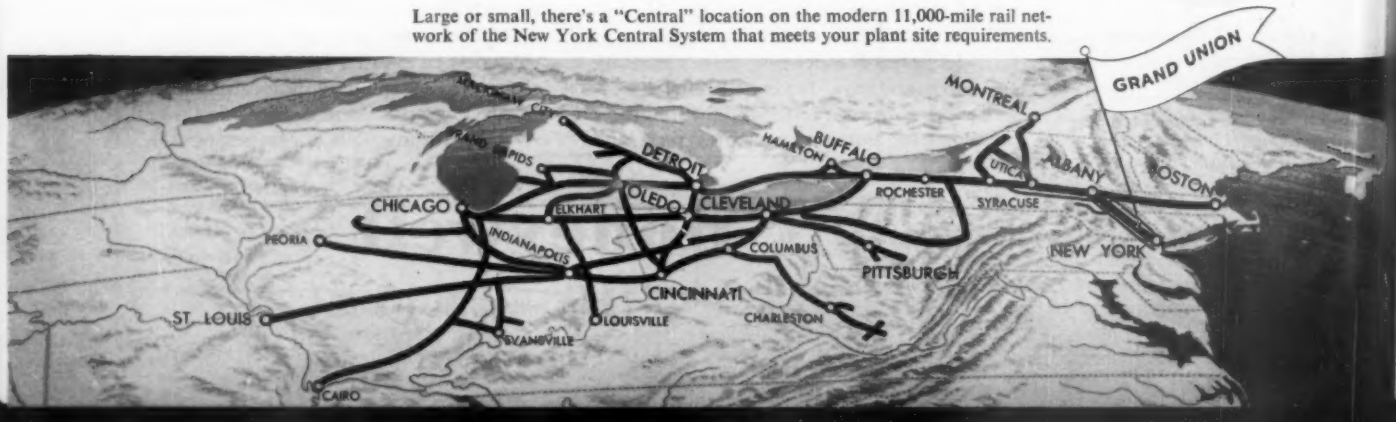


". . . the Donner-Gordon arrangement is a return to the former way of life for GM . . ."

GENERAL MOTORS starts on p. 142

son had had four executive vice-presidents; Curtice had two—Donner for finance, and L. C. Goad for automotive and parts. Five men from management advanced to the board during Curtice's presidency: Keating, Kyes, Wiles, Charles G. Stradella (president of GMAC), and George Russell, then vice-president-finance, and now an executive vice-president.

• **Finding a Successor**—Age was one limiting factor in any other moves Curtice may have wanted to make. His subordinates were mostly in the middle and late 50's when he took office—experienced, capable executives, years from retirement but too old for consideration as Curtice's successor.

V. The Temperate Man

A selection committee of five board members—Sloan, Bradley, Curtice, Gen. Lucius Clay, and Walter S. Carpenter, Jr.—studied the possibilities. They found seven men who appeared to be the most likely candidates.

However, the president should retire at 65, and there was the feeling that when appointed he should have at least five years ahead of him in the job.

That narrowed the choices down to four: Donner, Gordon, Goad, and Kyes. "We found," says one of the selection committee members, "no one man with all the capacities to run the show."

• **Two-Man Show**—The capacities of Fred Donner and Jack Gordon are utterly different; they complement each other, as was true in the Sloan-Knudsen and Sloan-Wilson hierarchy. What is basically present in the Donner-Gordon arrangement is a return to the former way of life.

Donner, trained by Donaldson Brown, has spent his entire 33-year career at General Motors on the financial staff. Gordon (an Annapolis graduate) has spent 35 years in GM plants, first as an engineer, later as Cadillac general manager, and group vice-president for body and assembly.

Once again the executive power is with the financial group in the East, and the operating responsibilities with the production men in the West. And Donner is chairman of the renamed finance committee.

• **Team Man**—Curtice was a one-man operator; despite his start as an accountant, he was an entrepreneur, with a flair for salesmanship and showmanship. Donner is a team man, a man of precise mind and expression, a man of temperate thoughts and ambitions.

C. E. Wilson never particularly concealed a belief that it was not desirable for GM to get more than 50% of the car business. He did not, however, put any damper on executive ambition. "The top," he says, "is a slippery place."

There are opinions that Donner shares the Wilson view on restraint. To one of the du Pont directors, Donner "has some Pierre traits." C. S. Mott, always a strong Curtice man, had the Westerner's natural misgivings about the selection of Donner but is highly pleased at how "good a man he is turning out to be."

• **Board's Method**—That, of course, has been Donner's schooling. On the day of a GM board meeting, the finance committee meets in the morning to pass on recommendations that the board will be asked to adopt. Then, says one of the older directors, "they feed us a heavy lunch, and we go into the board room and they put out all the lights and show the economic position on slides. After all that food sometimes you have trouble staying awake."

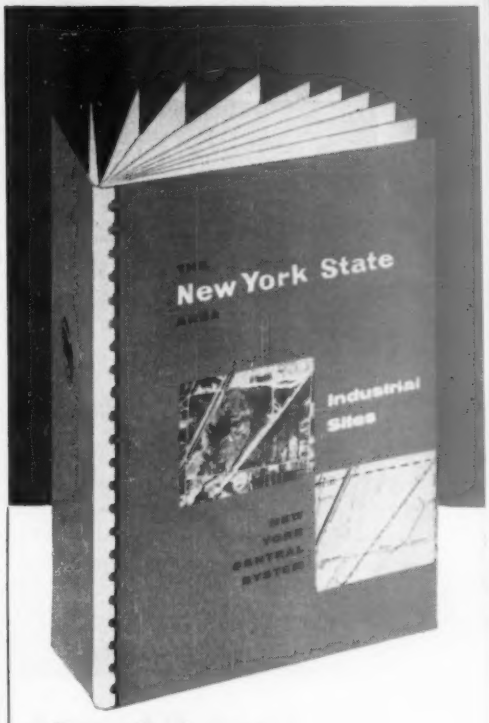
It is rare for the GM directors ever to vote on a matter. They generally hear reports from the operating men brought in from Detroit (one man once flew to New York, made a 20-minute appearance before the directors, and flew right back). The executive committee and the finance committee present full plans with a recommendation for adoption. The directors have the choice of approving or disapproving; the information is so detailed that there is seldom any point to discussion.

VI. Problems and People

That, of course, is the way the GM corporate organization is supposed to function: The policies are formulated by the two committees of directors and presented for ratification to the full board. And so on those committees—the executive headed by Gordon, and the finance headed by Donner—will fall the burden of conceiving new doctrines to meet conditions as they change.

The increasing government pressures may not be the most important of these conditions. After all, GM is a mature corporation, which should by this time begin to develop the resigned view of the du Pont people that big government is always going to take a critical look at big business.

Nor may the new conditions in marketing—the small cars, the place for "medium-priced" cars, the passing of salesmen—be the most important. It is not generally remembered that Donner was one of the group that worked intensively on dealer problems for Sloan, and he has for years been a major influence on GM pricing and distribution



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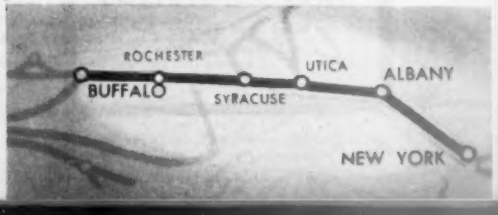
For copies of plant-site brochures and information on how New York Central can help you locate a plant site, write: Mr. Otto W. Pongrace, Director of Industrial Development, Department C, New York Central Railroad, 466 Lexington Avenue, New York 17, New York.

New York Central Railroad



policies. New conditions in marketing may, to a man of Donner's depth, just be more of the same.

• **Developing Management**—All of the matters affecting General Motors affect people; and it is in this area that Donner and Gordon have inherited the conditions most likely to change. They must both develop their successors and take the lead in proposing replacements for board members who may resign, die, or retire.

Both men believe that the GM system, regardless of other views on how it has worked in recent years, develops management. Most divisional managers are exposed to many facets of policy-making. Gordon, in particular, bristles at the suggestion that engineers—who are so prominent among the younger GM officials—are people of limited interests.

• **Continuity**—There has been, both men emphasize, a continuity in General Motors management, and this will continue—precisely as Alfred Sloan envisioned it should. And because of this continuity, so obvious on the present board of directors, Donner rejects the notion that he and Gordon will, before they attain retirement age, preside over the installation of a "new" board of directors.

The men from management who may go on the board are all presently at work in the corporation. Donner and Gordon know them now. They will be men who have worked their way up through the corporation under the Sloan and Wilson idea of giving a man a chance to develop himself.

No size is ever specified for the General Motors board of directors—in the past 20 years it has been larger and it has been smaller than the present 33 members. It now has 12 men from present management; it has had more and it has had less. In the Donner context of having no rules for board membership, GM could have a directorate principally of active management, one principally of large shareholders, or one principally of "public" members.

• **Missing Voice**—One thing appears certain. It will not again have—after the decision on the du Pont divestment—the type of intensive, concerned interest that GM has had for nearly 40 years from the du Pont company and its executives.

So, after all other considerations—after the divestment decision, after the grand jury has listened, spoken, and dissolved, after the small cars have made or erased their mark—the central problem of Fred Donner and Jack Gordon may be concealed in the urbane comment of the du Pont chairman Walter S. Carpenter, Jr.:

"It is a grand thing for a company to have a competent, interested stockholder." **END**

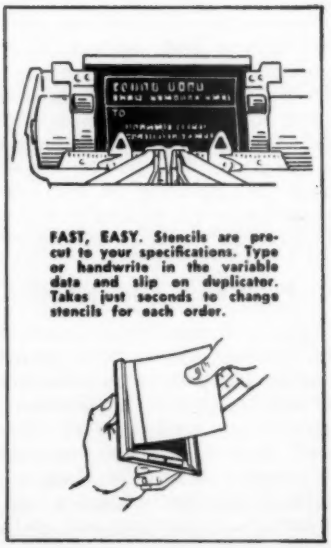
Just "touch" the carton and there's your label

Weber Touch-Stenciling—the fast easy way to address multiple carton shipments...

No more stencilboards, rubber stamps or label typing. Instead, you can print facsimile labels directly on cartons with just a "touch" of a Web-O-Print hand duplicator.

Stencils are pre-cut to duplicate your label. Customer's name and address or product information is filled in on a typewriter or by hand. Then slip the stencil on the handy duplicator and touch-stencil all the cartons in the shipment. The duplicator leaves a clean, sharp print that will not fade, rub or wash off.

It's so easy to do. With a smooth, one-hand motion 40 to 50 cartons can be addressed in a minute. The duplicator holds enough ink for several thousand impressions and it prints anywhere — cardboard, wood, paper, smooth or rough, round or flat surfaces. After the shipment has been addressed the stencil is thrown away, saving filing time and space.



FAST, EASY. Stencils are pre-cut to your specifications. Type or handwrite in the variable data and slip on duplicator. Takes just seconds to change stencils for each order.

Send for free bulletin on Weber "Touch-Stenciling" methods. Packed with ideas on addressing and marking multiple shipments.

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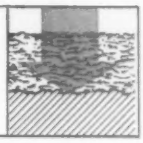
The Rust-Oleum system Stops Rust and beautifies as it protects!

Rust-Oleum's specially-processed fish oil vehicle penetrates rust to bare metal. Proof of this penetration is available in a complete thirty-page report showing the results of radioactive tracing studies.



Rust-Oleum is not only an exclusive formulation—it is a *system!* On rusty metal sash, for example, you simply scrape and wirebrush to remove rust scale and loose rust—then brush Rust-Oleum 769 Damp-Proof Red Primer over the remaining sound rusted surface. The *specially-processed* fish oil vehicle penetrates rust to bare metal – while the surface film remains firm and durable. Now – you apply the Rust-Oleum finish color of your choice to provide double protection and lasting beauty against fumes, sun, moisture, weathering, etc. This is the Rust-Oleum *system* of primer and finish coat. It *saves time, money,* and *metal.*

What is your rust problem? What is your color choice—red, gray, aluminum, green, black, yellow, blue, white? – Rust-Oleum has them all. From pipes, tanks, girders, stacks, fences, machinery, or boilers in industry – to fixtures, tools, basement fittings, or metal railings around the home – Rust-Oleum can do the job for you!

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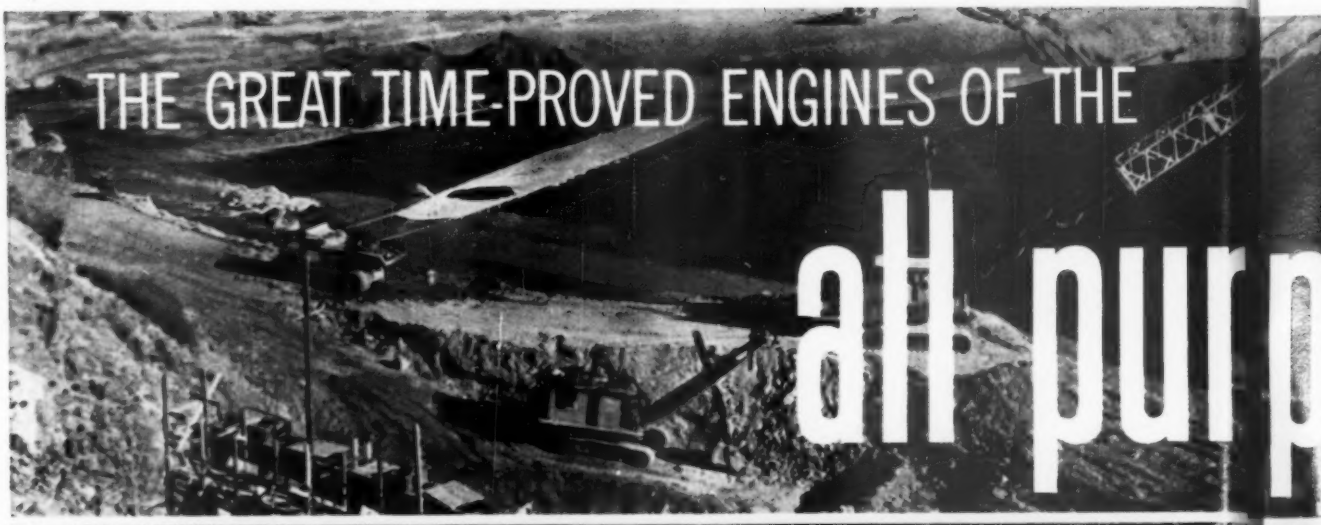
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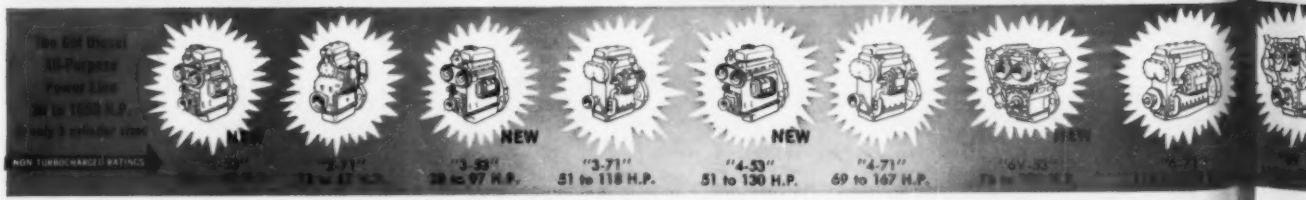
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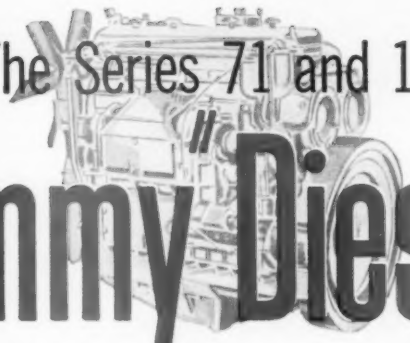
The Series 71 and 110 "Jimmy" Diesels



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Never in industrial history have there been Diesels as versatile and capable as the Series 71 and 110 GM Diesels—integral parts of the All-Purpose Power Line.

For these "Jimmy" Diesels have stepped in and taken over thousands of jobs for every kind of business—done those jobs as never before—greatly expanded the usefulness of Diesel power.

And because of GM Diesel's unique power concept—a family of engines featuring unequaled parts interchangeability—these time-proved "Jimmy" Diesels become even more valuable as key components of the GM Diesel All-Purpose Power Line.

Today, these "Jimmy" Diesels can boast of compactness, light weight, high efficiency, durability, inexpensive maintenance and unequaled parts interchangeability—all the result of years of refinement in design. So now, whatever you want a Diesel to do, these GM Diesels will do it for you faster, better, and at less cost.

You've nothing to lose but your profit problems with these high-earning-power Diesels—the time-proved members of the All-Purpose Power Line. Get full details by writing GM Diesel, Dept. P-4, Detroit 28, Michigan.

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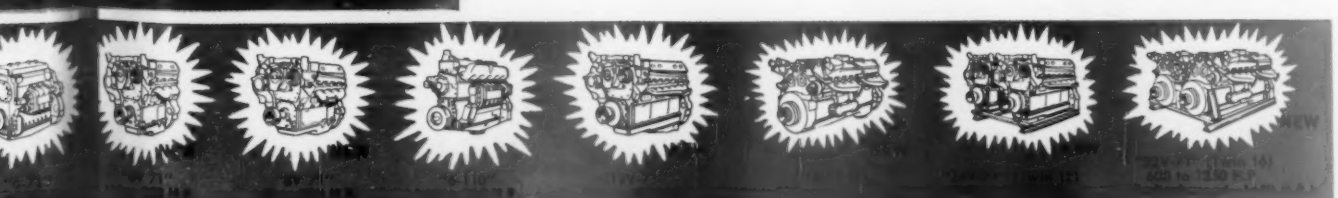

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What can Señor Mendoza's putter teach the chairman of the board?

The sky's the limit to the overseas business *you* can do via the Pan Am Profit Lift!

For air cargo can *raise* the ceiling on sales, bring costs *down to earth* and make your marketing problems take *flight!*

Here are just a few of the ways it *pays* off:

You can ship by air for *less* than by sea. Example—you can fly 1,250 golf clubs to Argentina for only 78¢ per! And that is total cost—no hidden charges, whereas *total cost* of sea shipments can be *10 times* the ocean freight rate!

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Air cargo shortens the gap between manufacture and delivery, smooths out production flow, makes overseas warehouses *vanish.*

No wonder the big swing in transportation is to air cargo. And no wonder the big swing in air cargo is to Pan Am. For with the Pan Am Profit Lift, both you and your customers enjoy *the most complete, convenient and cost-saving service ever offered by ANY overseas cargo carrier.*

Let us put world markets on *your* doorstep. For that next shipment, call your cargo agent, forwarder or Pan Am *today.*

All this and a "Jet Assist" too!
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FASTEST DELIVERY to all the world. No other airline can match Pan Am's number of *direct* flights to and from all 6 continents.

WORLD'S FASTEST, SUREST RESERVATIONS. You can check available space on *any* Pan Am flight from the U. S. in just 4 seconds, thanks to "PAT"—electronic Pan Am Teleregister. Reserved or unreserved, *all* Clipper Cargo is *expedited.*

MOST EXPERIENCED air cargo carrier. Pan Am handles over 90% more overseas cargo than any other airline. You get *expert* service all the way.

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DOORSTEP SERVICE from anywhere in the U. S. Just call your cargo agent, forwarder or nearest Pan American office. Pan Am does the rest, takes goods from factory to market!

AND NOW—more "lift," more service than ever before, thanks to new Jet Clippers!

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FASTEST DELIVERY TO ALL THE WORLD

*Trade Mark, Reg. U. S. Pat. Off.

INTERNATIONAL OUTLOOK

BUSINESS WEEK

APR. 18, 1959

The resignation of Secy. of State Dulles (page 33) won't alter the goals of U. S. foreign policy. These are fixed by the power struggle between East and West—and by the worldwide security arrangements this struggle has forced us to make.

But the new Secretary can't be expected to conduct our foreign policy in quite the same way. For one thing, he won't have the same influence Dulles had with Pres. Eisenhower. That could put some of the big foreign policy decisions—the kind that Dulles used to make on his own—into the hands of the National Security Council.

Then, it's hard to see how a successor can swing as much weight with our big allies in Western Europe. Because of his prestige and powerful personality, Dulles became the acknowledged leader of the Western Alliance.

—•—

While the new U. S. Secretary is settling into his job, it is extremely important that Britain, France, and West Germany quit their squabbling and again pull together as a team. Otherwise, the Soviets will be able to run us ragged in the Berlin negotiations.

But there's no blinking the fact that **very real differences now divide the British and West German governments.** Here are three that won't be easily resolved:

- **A flexible Berlin policy makes good domestic politics for Britain's Conservative government.** But just the reverse for the Christian Democrats in West Germany.
- **The British resent their exclusion from the benefits of the European Common Market,** and fear the added economic strength the West Germans gain from being inside it. This tempts London to steal a march on the Germans in trade with Russia.
- **There's a revival of Britain's traditional fear of a unified economic and political force on the Continent**—a fear that has been stirred by the recent intimacy between Adenauer and Pres. de Gaulle.

Fortunately, **Anglo-German relations have improved somewhat this week.** Bonn, no less than London, is anxious to end the recent public feuding.

With Chancellor Adenauer on vacation, and soon to give up his key post, easing of tension becomes more likely. Adenauer had become convinced that, in meeting the Berlin crisis, the British intended to sell him down the river. That's why he lashed out last week at the British press, and by implication at Prime Minister Macmillan.

This week, **Economics' Minister Erhard (he's likely to be the next chancellor) went out of his way to placate the British.**

He put in a plug for a pet British idea—enlarging the six-nation Common Market into a broader free trade area. **Erhard also had some of his officials working with a visiting Dutch group on a scheme that might constitute a preliminary step in that direction.**

On the Berlin issue, the West German foreign office is taking a more flexible line. This showed up in London at midweek as officials from the U. S., France, and West Germany tried to work out a common policy on Berlin.

BUSINESS WEEK
APR. 18, 1959

Britain's uneasy economic relations with West Germany and France help explain why London is pushing for more trade with the Soviet Union.

A British trade mission—probably headed by President of the Board of Trade Sir David Eccles—plans to visit Moscow soon. The mission will explore the promises of big capital equipment orders that Premier Khrushchev made to Macmillan when the latter visited Moscow recently.

The Russians are talking of orders worth $500-million—if only credits can be arranged. Khrushchev apparently wants to import complete consumer goods plants so that he can pull off his ambitious Seven-Year Plan.

No one in Britain is betting on getting a half-billion dollars worth of business from Moscow. Soviet leaders have made promises like this before, only to forget them. But British exports to Russia still are below 1% of total British sales abroad. London figures the Russian market is good for more than that.

The problem of credit may prove to be the sticking point. Up to now, British shipments to the U.S.S.R. have been on 45 days' credit. Such shipments normally have been insured by the government's Export Credit Guarantee Dept.—if the manufacturer requested it. Now **Moscow wants credits for five years or more** to cover any contracts for capital goods.

The British government is ready to insure such contracts through the E.C.G.D. up to five years maximum, with premiums the same as those for other European countries. The actual credit, of course, is granted to the exporter by his bank, on the basis of the insurance policy.

The E.C.G.D. says it won't touch anything longer than five years. So far, the government hasn't uncovered a way of granting longer credits to the Russians.

—•—

Japan is planning to boost its 1959 textile exports to the U. S. Under their own voluntary export quota, the Japanese want to sell 247.2-million sq. yd. this year, as against 235-million in 1958.

Through informal talks, the U. S. has tried to convince the Japanese to take it easy. **Washington knows that the domestic textile mills are on the warpath.** If there's any increase of competition from Japan, they will demand—and probably get—official quota protection from the U.S. government.

—•—

The U. S. visit of Cuba's Fidel Castro had Washington a little edgy at midweek. U. S. officials have been bothered by Castro's vague threats to wreck the international sugar agreement by refusing to accept the limit put on Cuba's exports to the U. S. **Officials also are puzzled by hints from Havana that Castro is after a $500-million loan.**

If it proves that Cuba wants a balance-of-payments loan, like those granted by the International Monetary Fund, Castro undoubtedly will get a fair hearing. But **Washington will want firm assurances as to where he stands on political and economic reforms.**

As Castro left for the U. S. early this week, Havana observers predicted he would push Washington hard for a better break on sugar and for a loan as well. But these observers felt that his main goal in the U. S. was to convince Americans that he was leading a genuine democratic revolution.

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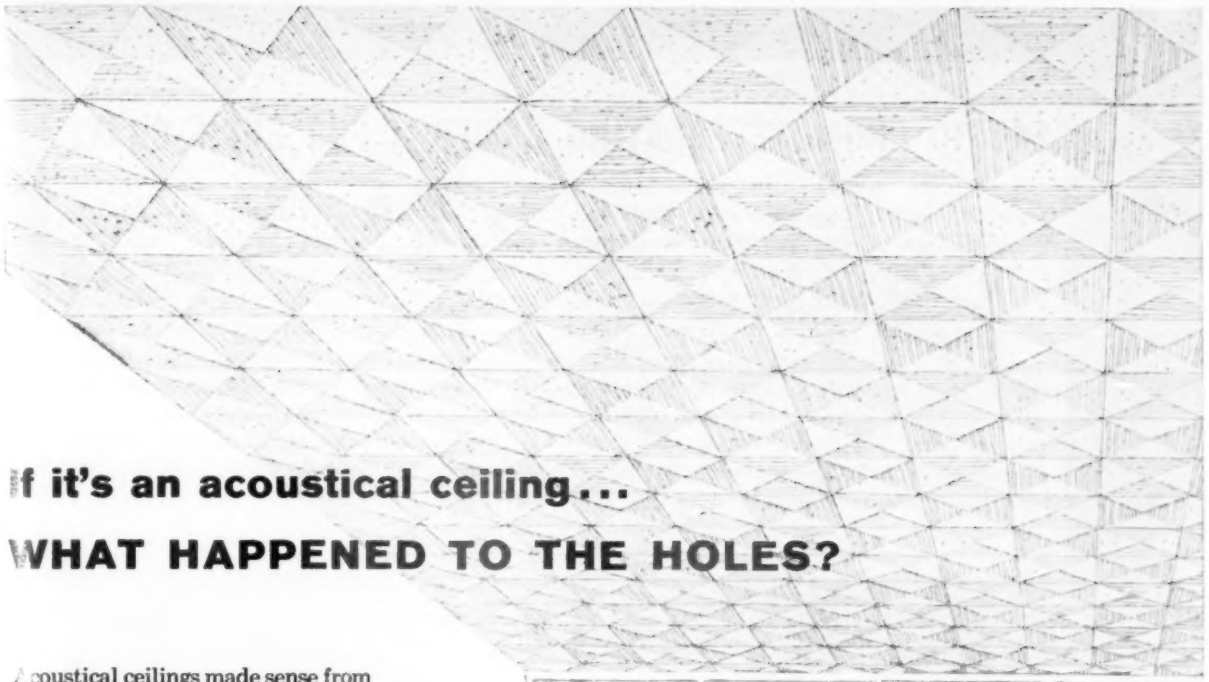

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In Washington

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Senate Group Favors Standardizing Records for State Corporate Taxes

State laws levying taxes on the earnings of out-of-state corporations, now in force in 36 states, should be made more uniform, the Senate Small Business Committee was told last week by businessmen and tax experts.

The committee called hearings in the wake of a Supreme Court decision declaring such taxes constitutional. It is now considering a series of hearings around the country to dramatize the burden that's put on business by the present hodgepodge of regulations. A Westinghouse tax executive told the committee it cost his company $170,000 a year just to keep the necessary records.

The solution, committee members believe, is to have the states voluntarily standardize record-keeping. No federal legislation is being considered.

• • •

Mack-Whiteside FCC Influence Trial Opens in Capital, May Take a Month

Richard A. Mack, former member of the Federal Communications Commission, and Florida attorney Thurman A. Whiteside went on trial this week in a Washington (D. C.) federal district court on charges of conspiracy to inject bias and improper influence into the affairs of FCC.

Government prosecutors and defense attorneys, after wrangling three days last week over selection of a jury, began what is expected to be a three- or four-week presentation of witnesses and evidence.

The government charges that Whiteside used off-the-record, personal pleas and financial inducements—accepted by Mack—to influence Mack's vote in the commission's 1957 award of Miami television Channel 10 to one of the four applicants, Public Service Television, Inc., a subsidiary of National Airlines.

Defense lawyers for Mack and Whiteside denied the charges, saying the evidence will not show that Whiteside ever asked Mack for his vote in the case.

The Miami Channel 10 award was the subject of sensational Congressional hearings last year that resulted in Mack's resignation and in FCC proceedings, still pending, to determine if the award of Channel 10 must be revoked and applications considered again.

• • •

Goldfine's Counsel Wins First Skirmish On Contempt of Congress Charge

Lawyers for Bernard Goldfine won a first-round court battle this week in attacking the contempt of Congress indictment against the Boston industrialist for refusing to answer questions put to him last year by the House subcommittee investigating influence in government.

The trial was to have begun in a Washington (D. C.) federal district court on Apr. 20. However, Goldfine's attorney, Edward Bennett Williams—a brilliant trial strategist—this week succeeded in having Judge James W. Morris postpone the trial in order to allow the defense to prove that Goldfine's right to private consultation with his lawyers had been invaded.

Williams will begin calling witnesses and presenting testimony for the defense on Apr. 28, before the government has had a chance to begin its case. **Williams based his request on the allegation that the subcommittee knew in advance that Goldfine would decline to answer the questions because its former chief investigator had allegedly set up a recording device in Goldfine's hotel room and had overheard his private conversations with his lawyers.**

Williams argues that the questions were based on "tainted evidence" and that there had been a deliberate attempt to set up a contempt case, and wants the indictment wiped out and Goldfine given another chance to appear before the committee and testify.

Government lawyers tried to block Williams' move, claiming the subcommittee had the material and its questions in hand before the alleged eavesdropping incident. A favorable ruling by Judge Morris on the defense motion after Williams puts on his witnesses would in effect wipe out the contempt of Congress charges, on grounds the questions had been developed through a violation of Goldfine's constitutional rights.

• • •

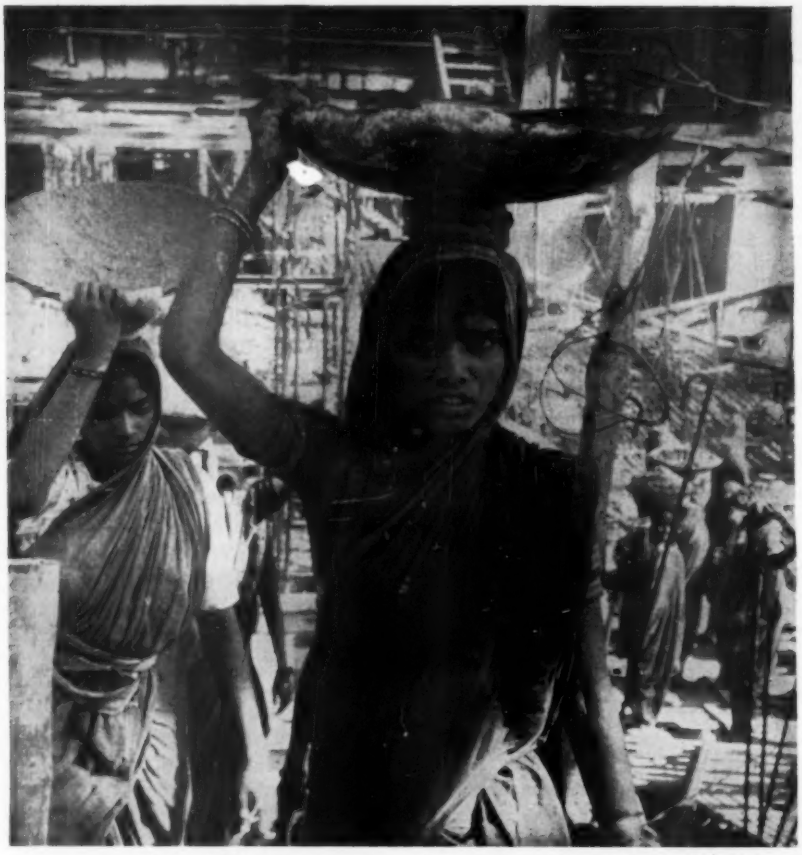
Harvard Economist Picked as Chief For Study of Growth and Inflation

Otto Eckstein, 32-year-old Harvard economist, has been selected as staff director of the Congressional Joint Economic Committee study of economic growth and inflation (BW—Mar.21'59,p47). Sen. Paul Douglas (D-Ill.) picked Eckstein with the approval of the ranking Republican on the committee, Rep. Tom Curtis of Missouri.

Eckstein has authority to bring in at least two senior economists to work with him and will also draw on the permanent professional staff of the committee. Eckstein, on a sabbatical from Harvard, will devote full time to the study for the rest of the year. He is a specialist in fiscal economics and recently completed a 10-year look-ahead at budget trends for the Committee for Economic Development (BW—Apr.4'59,p27).

Last year, Eckstein was a member of a panel of economists that examined the causes of inflation for the Joint Economic Committee. **He argued that specific shortages in some types of goods were chiefly responsible for price rises in 1955-58,** citing steel and machinery in particular. He did not go along with the theory that large corporations, through administered pricing, or powerful unions, through wage increases, are the chief culprits in generating inflation pressure.

"He's got ideas, but no pet theories and no prepared position to defend," one government economist says about Eckstein.



MANUAL labor of Indian women was used in construction of Bhilai steel plant in central India, put up with Soviet aid and technology.

The Soviets

Indians are impressed with the large plant—and the friendliness of the Russians who came to help build it.

The pictures on these pages tell a story of real Soviet achievement in the field of economic competition. Moscow's trade and aid offensive in the underdeveloped countries can't be brushed aside, as it once was, as a mere propaganda stunt. The fact is that Russia's industrial show piece in India—the government steel mill they are building at Bhilai—is now producing pig iron.

• **Irons in Fire**—In fact, the Russians have done so well at Bhilai that they probably will offer to double steel capacity there as part of India's third Five-Year Plan (1961-65). India's Minister for Steel, Mines & Fuel goes to Moscow late next month to discuss this expansion at Bhilai. He will also close a deal for a 50,000-bbl.-a-day oil refinery that the Russians have offered to build for the Indian government. In addition, plans are being made for construction of several big pharmaceutical plants in India.

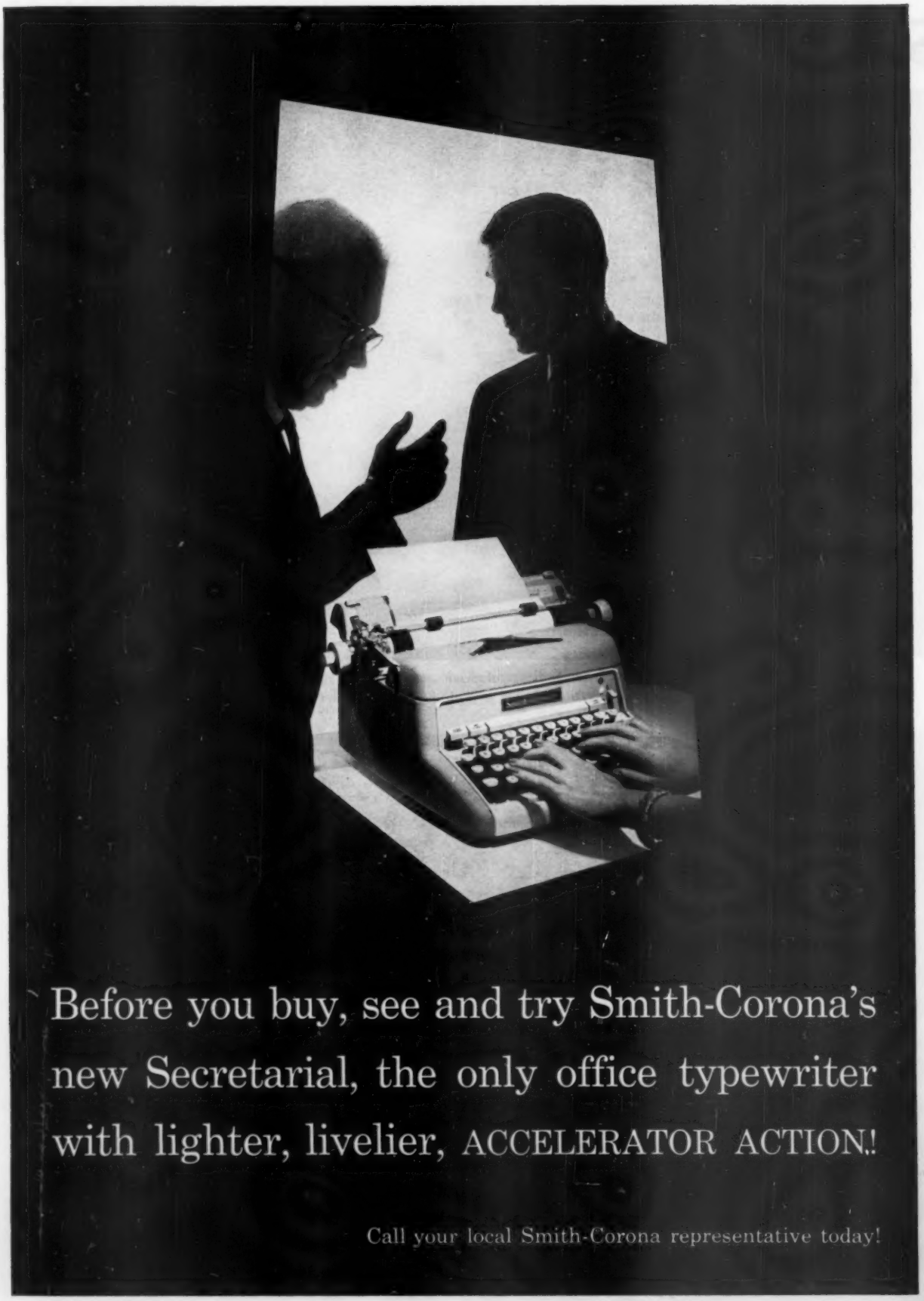
The U.S. is well aware of the economic success the Russians are achiev-

INSTRUMENTS on Bhilai control panel are explained to Indian worker by Russian at right.

THE STEEL MILL which is costing $270-million, has 1-million ingot ton capacity. It now is producing pig iron, will make steel this summer.

Score Success With Bhilai Steel Mill

ON-THE-JOB-TRAINING is given to an Indian technician by Russian engineers (wearing hats), who are explaining blast furnace operations during a "tap." Pig iron production started in February.



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(Story starts on page 164)

ing in the underdeveloped countries. Only last week, Allen W. Dulles, director of the Central Intelligence Agency, stressed this theme at the New Orleans meeting of the Edison Electric Institute. And he pointed specifically to the Bhilai steel mill.

In India, Bhilai has had a tremendous impact on public opinion—and not just on Communist sympathizers. The Russians have taken great pains to use the building at the plant for their political advantage.

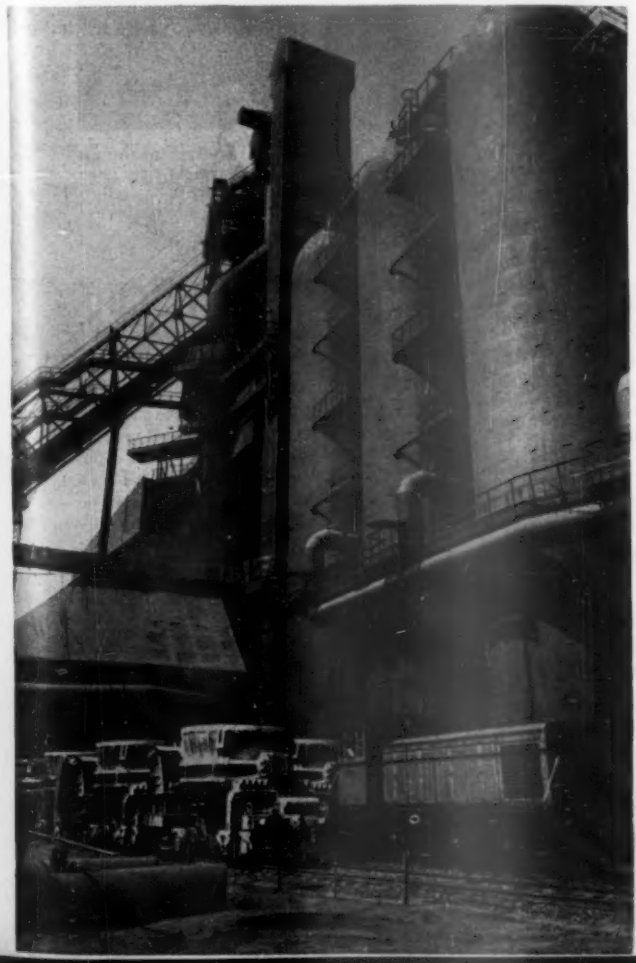
• **Fraternization**—Perhaps most important, the Russians at Bhilai have managed to become an integral part of this new steel town. The 1,300 to 1,400 Russians there (some 300 engineers with families and supporting personnel) live, work, and play on friendly terms with the Indian community. This has impressed the Indian steel workers and even some of the genuine anti-Communists in the Indian government and business community.

At Rourkela and Durgapur, where the West Germans and British, respectively, are building steel mills for the Indian government, there is not the same easy relationship—either at work or after hours. Moreover, when top engineers from India's privately developed Tata steel works at Jamshedpur visit these three steel projects, they get a more friendly reception from the Russians than from the British or the Germans. Even the American construction team that handled the recent expansion program at Tata ruffled the Indians a little by its obvious concentration on getting the job done in a hurry so it could go home.

• **Organizational Advantage**—The Russians also seem to gain an engineering edge over the Germans and British by operating, in the Soviet fashion, under a single Moscow-controlled authority. The Krupp-Demag combination that's building Rourkela has farmed out the engineering to at least a dozen West German firms, while the British are handling their project through a consortium of 13 companies. Some Indian officials think this difference explains why the Russians had no trouble producing 1,000 tons of pig iron a day when one of the Bhilai blast furnaces started operating early in February, while the German mill (which started up a day earlier) ran into mechanical problems that kept initial output to only 500 tons a day.

The Soviet Government, of course, doesn't miss any chance to use Indian Communists to exploit the propaganda value of its achievement. In fact, Moscow got its propaganda drive rolling very early. Soon after the Bhilai agreement was concluded back in 1955, an Indo-Soviet cultural society was

CONFERENCE brings together Indian general manager (with glasses), his assistants, and top Soviet engineer (at end of table).



BLAST FURNACE is one of three units built by the Russians at Bhilai steel plant. Each furnace is capable of turning out 1,000 tons of pig iron a day.

HEAVY EQUIPMENT is installed by Indian workers under the careful and patient supervision of Russian engineers, who sometimes helped with work.

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(Story starts on page 164)

launched. This society now claims about 60 branches throughout India, including a large one at Bhilai itself. These branches present Soviet films, lectures on the Soviet Union and plugs for Soviet economic assistance to underdeveloped countries generally.

Still, this big propaganda buildup would have fallen flat if the Russians hadn't come through and made Bhilai such an effective show piece in both technical and human terms. Actually, it's not so much the technical competence of the Soviet engineers that impresses the Indians as it is their personal attitude and that of their families.

• **Friendly Cooperation**—Western observers who have visited Bhilai say that in the plant the Russians go out of their way to help the Indians. They won't hesitate to pitch in manually if necessary and are very patient in explaining things so the Indians can learn their jobs thoroughly.

In off-hours, the Russian men will play volley ball with the Indians and will attend movies with them. But generally only Indians who have been sent to Russia for training are invited to visit the Russians in their own quarters.

The Russian wives, though, do most of the socializing with the local populace. A few attend local sewing classes and most do their own grocery shopping in the local stores—something few Western wives do. Both Russian men and women enjoy buying Indian consumer goods, such as shoes, dresses, and dress materials, which often are cheaper or more plentiful than at home.

Actually, the Russians are forced to do all their shopping locally. Their government sends in nothing except Pravda and Soviet magazines. The only vodka they have is the limited supply their wives bring in. As Bhilai is a dry town, there is a Russion exodus on Sundays to a wet town some 16 miles away.

All in all, except for the blasting heat, most of the Russians at Bhilai have never had it so good. They have good pay and good quarters—with air conditioning thrown in free.

• **Uneven Rewards**—From the Bhilai projects and several smaller industrial undertakings, the Soviet is reaping political gains in India far beyond its relative contribution in economic aid. Russian aid to India (in interest-bearing credits) totals about $260-million to date, or only about 12% of all the outside aid that India has received. By comparison, the U.S. has extended about $1.4-billion in all types of aid (some 50% of the total to India) and has contributed to agricultural as well as industrial development.

The Indian government recently has been trying to give the public a balanced picture of the whole aid program. Several snafus on Indo-Soviet deals also have detracted somewhat from the Russians' popularity. In recent weeks, for example, a Soviet bloc oil exploration program was thrown out of gear because Romania failed to deliver promised oil rigs.

And, of course, Red China's harsh crackdown in the Tibetan revolt has been a serious blow to Communist strategy in India. Recent visitors to New Delhi are hearing for the first time some official grumbling about the Soviet aid and trade program in India.

GOOD QUARTERS, complete with air conditioning, and playgrounds make life comfortable for the Russian families.

SHOPPING in local stores by the well-paid Russians is a factor in good relations. Colorful cloths interest this shopper.

VOLLEY BALL is a favorite sport of the Russians. Indians are a good match for visitors.

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In Business Abroad

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U. S. and British Companies Are Out, Russians In, Under Iraq's New Plan

The nine-year-old Iraqi Development Board is finished in Iraq, and so are the Western companies that held development contracts under its authority. This Western-oriented development agency planned long-range projects and financed them with a 70% cut of Baghdad's $200-million-plus annual oil revenues.

In its place a joint Soviet-Iraqi Central Planning Board will be set up shortly. **Under Iraq's recent $140-million loan agreement with the U.S.S.R., the Soviet Union got specific rights to help draft the country's future plans.**

The latest victim of contract cancellations among Western companies is Ebasco Services, Inc., of New York. Ebasco was the Development Board's consulting engineer on a natural gas pipeline from Iraq Petroleum Co.'s Kirkuk fields to a government-owned refinery near Baghdad. Other companies affected by Baghdad's new policy include Britain's Mackenzie Engineering, Ltd., of London (BW—Apr.11'59,p77), Ralph M. Parsons Co. of Los Angeles, and Tippetts-Abbett-McCarthy-Stratton Engineers, Inc., of New York.

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West Germany Launches Ore Carrier, The First of an Eight-Vessel Fleet

At Hamburg this week, Willy H. Schlieker—the Third Reich's "boy production wonder"—launched the first iron ore carrier of a new eight-vessel fleet that will total 156,000 deadweight tons. Schlieker is the man generally credited with solving Germany's postwar coal shortage.

The ships will be placed in the ore trade developing among Canada, Venezuela, and Western Europe. Each 19,500-ton vessel will cost an estimated $6.3-million.

The $50.4-million fleet is financed jointly by U. S. and West German interests. Included is a $15-million loan from New York's First National City Bank.

Schlieker has chartered the fleet for 10 years to Navios Corp. of Nassau, Bahamas. It will be operated by Atlantic Bulk Carrier Corp. of Monrovia, under the Liberian flag.

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Brazil Challenges U. S. Aid Policy, Rejecting IMF Austerity Program

Brazil's Pres. Juscelino Kubitschek challenged U. S. policy last week by refusing to go along with International Monetary Fund recommendations for an economic stabilization program. Washington, for the past two years, has made this a requisite for Latin American counties seeking U. S. assistance in coping with balance-of-payment difficulties.

To curb inflation in Brazil, cut imports, and stimulate exports, IMF had recommended budget cuts, credit restrictions, and a new foreign exchange rate.

By refusing to accept the program, Kubitschek also threatened IMF's new prestige as the watchdog of international financial stability.

Without substantial U. S. assistance to help cover this year's estimated external deficit of about $300-million, Brazil faces financial collapse. This would disrupt U. S. exports to Brazil, which now are running at an annual rate of more than $500-million. **Some Washington observers feel Kubitschek undoubtedly is counting on U. S. exporters to persuade Washington to bail out Brazil.**

An open clash between the U. S. and Brazil would aid Leftists in Latin America's most powerful country. Brazilian presidential elections are only a year off. And friction between the two countries also would tend to cancel out recent U. S. efforts to improve economic and political relations with Latin America—as exemplified by the new $1-billion Inter-American Development Bank.

On the other hand, should Brazil get a large U. S. loan without committing itself at least partly to IMF's suggestions, the stability of other governments in Latin America—particularly in Argentina—would be jeopardized.

At midweek, observers in both Rio and Washington were betting on some sort of compromise.

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Mitsui Gets Japanese Sales Rights To Package of Aerojet Rocket Products

Aerojet-General Corp. of Azusa, Calif., preparing to expand into the Far East, signed a deal last week with Japan's biggest and oldest trading organization, Mitsui & Co., Ltd. of Tokyo.

The pact gives Mitsui sales rights in Japan for a package of Aerojet's rocket products, including JATO (jet assisted take-off) and Aerobee rockets for taking high altitude soundings.

Mitsui was only put together again less than two months ago—after having been broken into some 200 fragments by Allied decree after World War II. Founded in 1673, the company got into international trade 200 years later. Annual sales this year are expected to exceed $1-billion.

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Business Abroad Briefs

Sumitomo Metal Industries, Ltd., of Osaka, signed an $80-million technical contract with Kaiser Engineers & Constructors, Inc., for modernization and expansion of an integrated steel operation at Wakayama, Central Japan. Last year, Sumitomo got a $33-million loan from the World Bank to help carry out its program.

Goodyear Tire & Rubber Co. is studying locations for a $7-million tire plant in France. Goodyear says it will be the first French tire plant built and owned by a U. S. manufacturer.

How Philips Merger Was Born

● Behind the talks between the American offshoots of Dutch Philips, the electric giant, and cash-rich Central Public Utility Corp. lie two years of complex maneuvering here and abroad.

● The moves wound up with Dutch and Belgian investors holding 43% of CPU's stock—a controlling interest.

● Though SEC has tentatively cleared the merger, it is keeping an eye on the deal—and could still say no.

In the wake of two years of complicated moves on the international chessboard of finance, an involved merger that would form a major electronics combination began taking shape this week.

One of the principals is Central Public Utility Corp., known on Wall Street as Cenpuc or CPU. The other is a group of U.S. offshoots of N. V. Philips Gloeilampenfabricken, or "Big Philips," which, with sales of more than $900-million in 1958, is known as the "General Electric of Europe" (BW—Jan.18'58,p104). These Philips companies in the U.S.—Philips Industries, Inc., Philips Electronics, Inc., and Consolidated Electronics Industries Corp.—are known collectively as "Little Philips." They are operated completely independently of their Dutch parent.

Informal discussions on the merger began last week between officers representing both sides. It is still too early to tell which will be the surviving corporation or just what the new corporate mix will be. But it's likely that CPU, a management company operating a group of foreign utilities (last year's gross sales: more than $11-million), will be swallowed up by Little Philips (combined sales in 1958: $42.5-million).

• **Attractive Cash**—Little Philips has had its eye on CPU for some time. The reason: CPU's big cash position amounting to $13-million out of total assets of $28-million. The Philips group would welcome capital to support its already extensive research and development operations as well as to increase its productive capacity.

Though the merger is not yet accomplished, it now appears a pretty safe bet. The way it became so is a classic story of financial finesse.

• **Trust Established**—It all started before World War II, when Big Philips created an irrevocable trust for the protection of its U.S. interests just in case the Germans took over its huge Netherlands operation. Picked as trustee was the Hartford National Bank & Trust Co., which, with the aid of a three-man advisory committee, oversees the American assets for the benefit of the shareholders of N.V. Philips.

This is the way the trust is set up: It owns 100% of the stock in Philips Industries, Inc. (as well as 100% of North American Philips, Inc., which is not involved in the merger talks). Philips Industries, in turn, owns 64.2% of the stock in Philips Electronics, Inc., whose shares are listed on the American Stock Exchange, and 4.4% of Consolidated Electronics Corp., which has a listing on the New York Stock Exchange. (North American Philips owns another 35.4% of the stock in Consolidated Electronics).

Thus Philips Industries, which is owned 100% by the trust, has a share in two operating subsidiaries. These companies are independent of Big Philips, although they exchange information freely. They turn out high-quality electronic and electrical goods, and they have been expanding rapidly. In certain specialized fields—high-tolerance resistors, for example, and X-ray diffraction units—they have a substantial part of the U.S. market.

• **On the Prowl**—But Little Philips has been interested in growing bigger. On the lookout for cash-rich merger candidates, it had its attention first called to CPU some two years ago. About that time, though, CPU was attracting other "special situations" investors. One of them, the NYSE firm of Jones, Kreeger & Co., spent most of 1955 and 1956 accumulating CPU stock for its own account and the account of a major group, Equity Corp., a $60-million investment company, and for two Equity subsidiaries. During the years, Jones, Kreeger & Co. managed to assemble some 300,000 shares—30% of CPU stocks—at prices averaging $15 to $16 a share.

Then, in December, 1956, Equity Corp. began negotiating for the sale of a major part of its CPU holdings to the Dutch investment banking house of Bankiers-Kantoor Mendes Gans, which is also an underwriter for N. V. Philips. Burnham & Co., another New York investment firm, acted as middleman. The talks were prompted by the fact that the Securities & Exchange Commission frowned on Equity's owning, as an investment company, such a big position in a holding company, CPU. So Equity sold 259,492 shares of CPU to Mendes Gans for a total of $6,176,000—at a per-share price of $23.80, a tidy increase over the average it had originally paid for the shares.

At the same time, Mendes Gans sold Equity and its subsidiaries more than $16-million worth of N. V. Philips convertible debentures—the balance of a big offering Mendes Gans had been trying to place in the Amsterdam market. And for the account of N. V. Philips, Mendes Gans took $10.2-million in Equity Corp. group's note securities.

• **Fatter Holdings**—Later, Mendes Gans increased its CPU holdings to 34.5% of the total shares outstanding by purchases through two subsidiaries, Altay Corp. and Melosine Corp. In addition, another 85,472 shares were bought by Schuyler Corp., all of whose stock is owned by the trustees of an "old age and benevolent fund" created for the benefit of N. V. Philips employees. According to the SEC, Schuyler Corp. was acting in concert with Mendes Gans, which thus gained control of 43% of CPU's stock. But, conscious of SEC's disapproval of Equity's big position, Mendes Gans did not want to hold CPU's stock itself.

In June and July, 1957, all these shares of CPU stock were transferred at $26 each to 36 Dutch and Belgian investors, whose identities are not known in the U.S. Each of the 36 made a downpayment of 10%, with the balance due in three years. The SEC notes that N. V. Philips lent its credit to Mendes Gans in making the original purchase of CPU stock and then gave each of the 36 beneficial owners the option of transferring their beneficial interest to N. V. Philips at a price insuring them against loss.

• **Power of Attorney**—At the moment, Mendes Gans holds an irrevocable power of attorney from 34 of the 36 investors. This authorizes it, among other things, to vote the shares in any appropriate manner at CPU stockhold-

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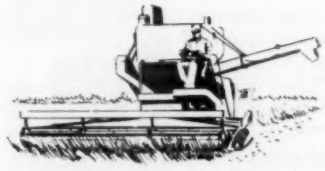
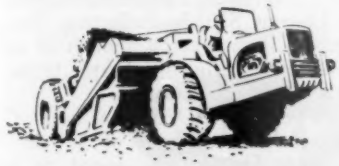
ROCKWELL-STANDARD *reports for* 1958

CORPORATION

a solid foundation for its optimistic outlook





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  – the focal point of its world-wide progress
- Many new products introduced
- Two major acquisitions
  – takes full stride into executive aircraft production
  – acquires torque converter and transmission business
- Foreign activities expanded
- More than $7 million capital additions
- More than $56 million working capital
- No long-term or current borrowings
- More than $115 million shareholders' equity
- More than 29 thousand shareholders of record
- More than $204 million sales
- More than $9 million net income
- Dividends maintained at $2.00 per share

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ers' meetings and to vote for or against any merger or consolidation proposals.

Mendes Gans' plan is to place the CPU shares—or the equivalent shares of the company surviving the merger—with a depositary in the Netherlands and to list the issue on the Amsterdam Stock Exchange. In Mendes Gans' proposal, there would be set up an agreement under which the depositary holding the shares would issue certificates to the investors purchasing them. But the depositary would not vote uninstructed shares. Normally, any uninstructed shares are voted by a depositary as he sees fit.

It's questionable whether the Amsterdam exchange will agree to these proposals. The terms are in conflict with its regulations, and it would require a special dispensation to push it through.

• **Favor From SEC**—However, CPU did win a favorable decision from the SEC—after a delay that was probably entirely unanticipated by the 36 Dutch and Belgian investors. Last week the commission decided to exempt CPU from treatment as a holding company under the Public Utility Holding Company Act of 1935. This act, if applied to CPU, could complicate the Philips merger through its provision that outside concerns cannot own more than 10% of a utility holding company without being itself subject to SEC regulations. SEC granted the exemption on the ground that CPU has spun off or sold its domestic utility subsidiaries and retained only the foreign operations, along with some oil and ice companies in the Carolinas and the Carolina Coach Co., a bus line.

But the SEC has made the exemption conditional on a merger's taking place within six months. Moreover, it ruled that any investor objecting to the merger must receive at least $28 per share for his interests. The over-the-counter market price of CPU shares is higher than that now, but the SEC figure guarantees that he will not have to sell for less.

CPU, for its part, agreed not to undertake any transactions other than the merger under discussion. If the merger is proposed, SEC can then review the situation—and conceivably could revoke the exemption if it frowns.

Credit Is Tightest Since Fall, 1957

Money market fears further clampdown by Fed. More Treasury issues offer 4% yields than since early 1932.

The facade of uneasy stability that has prevailed in the money and capital markets showed some cracks this week. Short-term and long-term borrowing costs increased and, with little investment demand in evidence, prices of debt obligations deteriorated.

Corporate borrowing costs in the capital market are now at their highest since the Federal Reserve's squeeze in the fall of 1957. Yields on government bonds also rose, with many issues hitting record lows in price.

• **Fear Fed Clamps**—Much of the increased depression in the market comes from fears of a further clampdown by the Fed. These fears were stimulated by the news that the money supply in March increased by $1.1-billion to a record $139.7-billion.

There is good reason to believe the money supply will take another sharp jump this month, because the payment date for the Treasury's $4.4-billion financing last month was Apr. 1. Thus, the increase resulting from bank purchases of these securities won't show up until April figures are announced in May.

To add to the woes of the government market, many dealers now think that corporate purchases of Treasury securities are near the peak, despite optimistic statements to the contrary, emanating from official sources in Washington. The corporate purchases have been a mixed blessing, for they represent short-term securities the Treasury must soon refund.

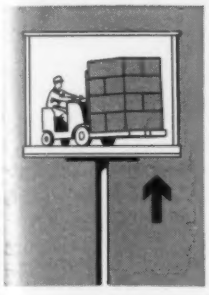
• **May Day**—One immediate problem facing the Treasury is that investors who want to exercise the option to cash in any of the 4% government notes of August, 1961, can state their intention to do so on May 1. Some $2.6-billion of these notes are outstanding, and government dealers say they would not be surprised at a cash-in running from $1-billion to $1.5-billion.

There are now 16 U.S. government issues that yield more than 4%. Yields of 4% or more have not been so freely available on Treasury issues since the early months of 1932.

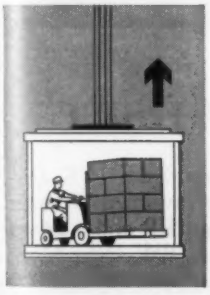
• **Distress Signals**—Reflecting the distress in the market, a number of corporate underwriting syndicates broke up this week.

When Central Power & Light Co.'s investment-grade issue of 30-year first mortgage bonds was priced to yield 4.60%—a borrowing cost to the company of 4.65%—three other syndicates handling earlier electric utility issues threw in the sponge.

Short-term rates jumped, too, this week. The 91-day Treasury bill rate is priced to yield about 3.13%, while the six-month bill rate is approaching the 3½% level. END



IT'S PUSHED UP



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Oildraulic operation saves up to 25% on heavy-duty elevator costs

- *Capacities to 100,000 lbs. or more*
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Low-cost hydraulic power is used to move and support the Oildraulic Elevator. It is pushed up from below, not pulled from above. Larger capacities are possible without the complex of wire rope and other mechanical equipment required for cable elevators. No overhead machine room is necessary. This eliminates the elevator penthouse which frequently clutters modern low-profile building design and always adds to construction costs.

Since all weight of the elevator and its load are transmitted through the oil-hydraulic plunger to the ground for support, shaft sidewalls can be of lighter, less-expensive construction.

Dependable service and a minimum of maintenance are assured by the efficiency and simplicity of oil-hydraulic operation. All adjustments are easily made on one control unit.

For any building to six stories, ask your architect to consider the construction and operation economies of Rotary Oildraulic Elevators. Mail coupon for more information or look for "Rotary Oildraulic" under "Elevators" in your phone book.

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In the Markets

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Paperwork Troubles Bog Down ASE; Harassed Brokers Turn to Computers

The American Stock Exchange has been having its troubles handling the flood of speculative trading that has inundated all the markets (BW—Mar.28'59,p135). This week it was still struggling to get its Stock Clearing Corp. back into operation. The Clearing Corp. broke down in mid-March under the volume of trading. Since that time, ASE's round-lot trading has been cleared at the New York Stock Exchange.

ASE has a corps of outside accountants and other extra help on the job trying to untangle the mess. However, gossip in Wall Street back offices holds that ASE's Clearing Corp. may never open up again completely.

The pressure of increased paperwork shows in the various brokerage houses too. **Merrill Lynch, Pierce, Fenner & Smith, Inc. has recently installed two giant IBM 705 electronic computers,** and Bache & Co. will have one by August. In addition, a number of smaller houses are joining together to set up a joint computer installation.

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Red Threat to Berlin Holds Up Fund For Investment in European Securities

Russian intransigence over Berlin was blamed for cooling off investor interest in a proposed new investment fund this week. Glore, Forgan & Co. had planned a $50-million offering of shares in Eurofund, Inc., a closed-end investment trust formed to invest in securities in Europe's Common Market (BW—Mar.7'59,p92). But now Glore, Forgan says the Communist threat has forced it to postpone the issue indefinitely.

In spite of the postponement, however, Glore, Forgan isn't discouraged about eventual sale of the Eurofund shares. "The basic investment situation in the Common Market," says Charles J. Hodge, Glore, Forgan partner, "is just as favorable today as it was before Khrushchev started kicking up a fuss."

Underwriters say privately there's also another reason—in addition to unsettled international conditions—for Glore, Forgan's difficulty. They point out that a number of other houses, which normally would join a venture such as Eurofund, have held off because they have similar plans of their own.

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Wall Street Sees Sign of Strength In Stock Market's Narrow Range

Common stock prices moved in a narrow range this week, a fact that most analysts considered a source of strength. For though the market has not been able to penetrate its record high of 616 on the Dow-Jones industrials index, **Wall Street is impressed with its resistance to moves that have taken it down near 600.**

It is conceivable that the market will suffer some setback, if only on technical grounds. But there is a widespread feeling that substantial buying power, both institutional and individual, will emerge with any sell-off. So the prevailing opinion is that stock prices over the next few months will reach higher levels.

The trickle of first-quarter earnings reports tends to substantiate investor expectations. Brokers point out that any sharper-than-expected rises in earnings are promptly reflected in higher stock prices.

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Report of Move on Surplus Disposal Throws Scare Into Copper Markets

International copper markets in London and New York rocked from a bad scare at midweek when word leaked out that the U.S. government was getting ready to release some of its surplus copper inventories. Washington can't dispose of its strategic commodity stockpiles without Congressional approval, but it can sell off inventories in the "pipeline" under the law.

The big three U.S. producers—Anaconda, Kennecott, and Phelps Dodge—were reportedly willing to go along with disposal of a small part of the surplus in order to relieve pressure in the current market, where hedge buying against an impending labor strike this summer is going on. But **rumors of the government's plan helped drop smelters' prices to 31½¢ per lb.—lowest point since copper prices started moving upward in recent months.** Common stock prices of major copper producers, however, were little affected.

In Washington, 15 influential mining state senators demanded Wednesday that the government publicly deny it plans any surplus disposal. **Spokesmen say the reaction in the market may kill any disposal move for the indefinite future.**

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The Markets Briefs

The Dept. of Justice this week appealed a U.S. District Court's dismissal of its suit to invalidate a **stock purchase deal between the New Haven RR and a group of seven investment banking houses** (BW—Nov.22'58, p38). The deal required the New Haven to buy 131,000 of its own preferred shares at $75 a share from the bankers—who had bought the stock at $60 to help finance flood damage repairs. At midweek the stock was selling at about 18½.

H. L. Green Co., $100-million-a-year variety chain, whose merger with Olen Co. produced some unhappy results a few weeks ago (BW—Apr.4'59,p113), this week backed out of another merger. Its deal to buy the 33-store D & C Stores Corp. was called off because contract terms had not been satisfied. J. L. Freed, Green vice-president, vehemently denied trade rumors that the apparent $3-million shortage on the books of Green's Olen Div. was involved.

Last year, one out of every ten housing starts was a mobile home

Third largest and fastest-growing community —it's built of aluminum

Today, over 3,000,000 Americans live in mobile homes —most of them aluminum. What's more—population studies indicate that in ten years, this figure will grow some seven times . . . reach 21,000,000 by 1970.

With the trend towards ever-larger, more luxurious units, it's going to take more and more aluminum to satisfy the demand for homes on wheels, now being produced at the rate of 150,000 a year. But more aluminum for mobile homes means less aluminum for other U.S. needs . . . needs that will probably double by 1965.

Fortunately—in nearby Canada, Aluminium Limited has harnessed water power to create electricity to make aluminum. As in the past, an important part of this will help meet the United States' increasing needs.

Aluminium Limited sells no consumer products in the United States. Instead, it supplies primary aluminum to U.S. fabricators who have no smelting facilities of their own. It also contributes to the development of key industrial techniques—such as the welding that helps make possible the modern mobile homes of today.

Aluminium Limited

In the U.S.: Aluminium Limited Sales, Inc.,
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DOW | **Industry's chemicals:**

WHAT'S MAKING NEWS?

Most executives charged with the responsibility of plant expansion—or modernization—could use a few more dollars in the building fund and quite a lot less advice on how to spend them. There is, however, an interesting way to stretch that building fund . . . a way in which one of industry's chemicals plays a part. This and the activities of Dow chemicals in other areas of management interest are reported here in concise form for busy readers.

You may wish to check certain items in this advertisement and forward to those concerned in your company.

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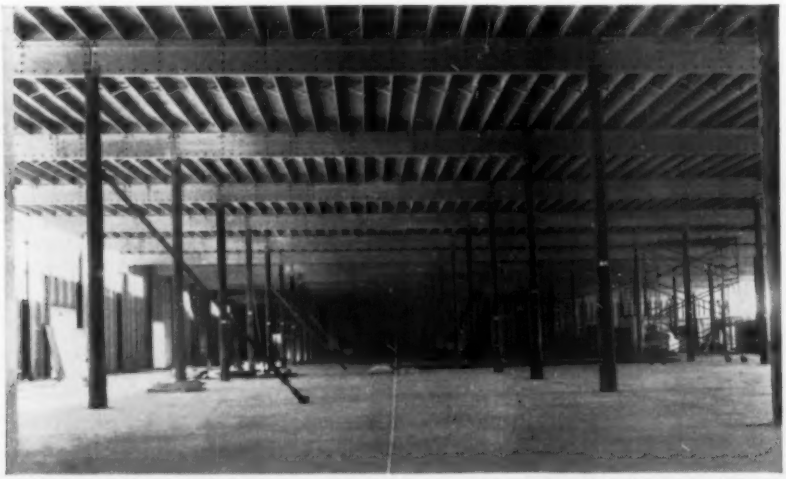
Now Industry Builds on Poles, Stretches Construction Dollar

Pole-type buildings are enjoying record popularity with businessmen these days. Reason: firms solve their warehousing problems for as little as 50% of the outlay needed for conventional buildings. Savings come from triple duty performance of Penta-treated poles—they serve as foundation, studding and roof support. Buildings are sturdy, permanent and adaptable to a variety of uses.

The pole building idea is catching on fast with budget conscious industry. The urge to save building dollars is expressed in warehouses, machine shops, equipment garages—even showrooms and offices! The experiences of companies in three different fields show how much more management men get for their money when they elect to erect on poles:

International Paper Company recently built a 100,000-sq.-ft. warehouse for wholesale storage of building materials. Built on Penta-treated poles, the 577 ft. long structure is equipped with a reinforced concrete floor, walls of weather-impervious plywood siding. Construction cost, including air conditioning and heating equipment for a 3,000-sq.-ft. office section, was approximately $4.00 per sq. ft. The poles, which serve as foundation, studding and roof support, were set widely apart to provide maximum span at minimum construction cost.

Pole building "showed them" in Missouri, too. Sho-Me Power Corporation, an electric utility, built a two-story, 11,340-sq.-ft. warehouse on



PENTA-TREATED POLES serve as foundation, provide 30' x 24' clear-span bays in this warehouse built for International Paper Company, Kansas City, Kansas.

FOUR MORE

INDUSTRIAL SOLVENTS

Metal finishing's easier, faster, safer with the right cleaning solvent for the job. Dow distributors offer wide selection, including perchloroethylene, methylene chloride, Chlorothene® and three grades of trichloroethylene.

Penta-treated poles for $2.04 per sq. ft. Cost included a reinforced concrete floor, aluminum siding and roofing, a loading dock and an electrically operated door.

A major chemical company used the pole building formula to save approximately 50% on a new 54,000-sq.-ft. warehouse for bulk chemicals storage. The completed cost of $2.68 per sq. ft. bought them a built-up flat plywood roof, aluminum siding, reinforced concrete floor, lighting, a sprinkler system and loading docks!

The savings realized by building on Penta-treated poles has helped many industries do a big job with a small building budget. Because branded poles are set firmly in the ground, buildings go up fast and have excellent wind resistance. They can be designed to fit any space requirement—odd size buildings are an economical reality. And they are easily expanded to meet the need for additional space.

And the treated poles used in industrial construction today are *clean*—clean looking, clean smelling, and clean to the touch. That's because Penta (short for Pentachlorophenol) is used as the wood preservative. It forms a long lasting shield, right in the wood, that wards off termites, rot and decay.

Poles and crossarms treated with Penta are used extensively by utility companies for their transmission and distribution lines. Railroads have long recognized the value of Penta-treated wood for crossties, car lumber, bridges and signal poles. And wood treated with this clean preservative is becoming more popular on the home front for garages, carports, cottages, fencing and outdoor shelters.

Photos and facts about 20 different industrial pole buildings may be obtained by writing Dow.

WHITE, PASTEL FABRICS now stay wrinkle-free, thanks to Dow's high-purity EDA.

NEW WRINKLE [redacted] IN TINTED TEXTILES

Ethylenediamine 98% is a jawbreaker as a word, but many manufacturers of cotton fabrics find it mighty worthwhile to say—*and to use!* This remarkable chemical (its nickname is EDA) is made into a resin that gives cotton materials high resistance to wrinkling and excellent wrinkle recovery. It also imparts improved dimensional stability and storage stability. This all adds up to rapidly increasing use in the popular wash and wear field.

Dow was the first to produce EDA 98% (98% pure!) in commercial quantities. This highly uniform chemical is used as an intermediate in processing a wide variety of products, from albumen to uranium salts and back to medicines. Its usefulness extends to explosives, leather, petroleum, cosmetics, insecticides and rubber.

★ ★ ★ ★

LIKE TO KNOW MORE about some of these products and the stories behind them? For idea-stimulating facts and figures about these and other chemicals making news in industry, write to us today. THE DOW CHEMICAL COMPANY, Midland, Michigan, Chemicals Sales Department 602AF4-18.

"MONO-, DI-, TRI" — [redacted] *3 ways to improve gas*

Natural gas processors learn to count "mono-, di-, triethanolamine" instead of "one, two, three" because a family of chemicals named ethanolamines plays an important role in their operations. Ethanolamines help them combat corrosion, contamination and other unwelcome characteristics of "sour" gas.

To assist gas processors in coping with these and many other problems involved in gas conditioning, Dow provides a complete laboratory service on conditioning problems.

Dow also maintains a team that offers continuous consultation on Ethanolamine solutions. This group tackles a wide range of problems.

Natural gas producers can count on this kind of comprehensive service from Dow's fully staffed and broadly experienced technical group.

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THE DOW CHEMICAL COMPANY
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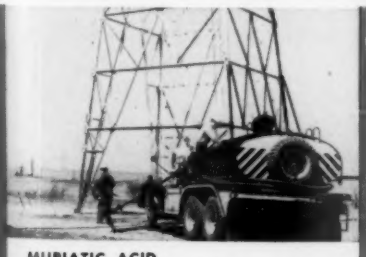
HARD-WORKING CHEMICALS FOR INDUSTRY



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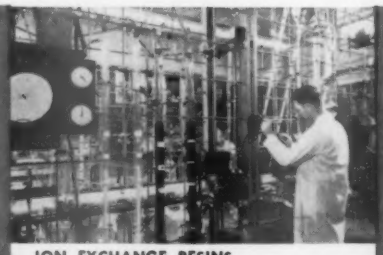
Dowell Division, Dow's right arm in serving the petroleum producing field, uses muriatic acid in special acidizing treatments to make oil wells more productive, more profitable. Also best source for fracturing services.

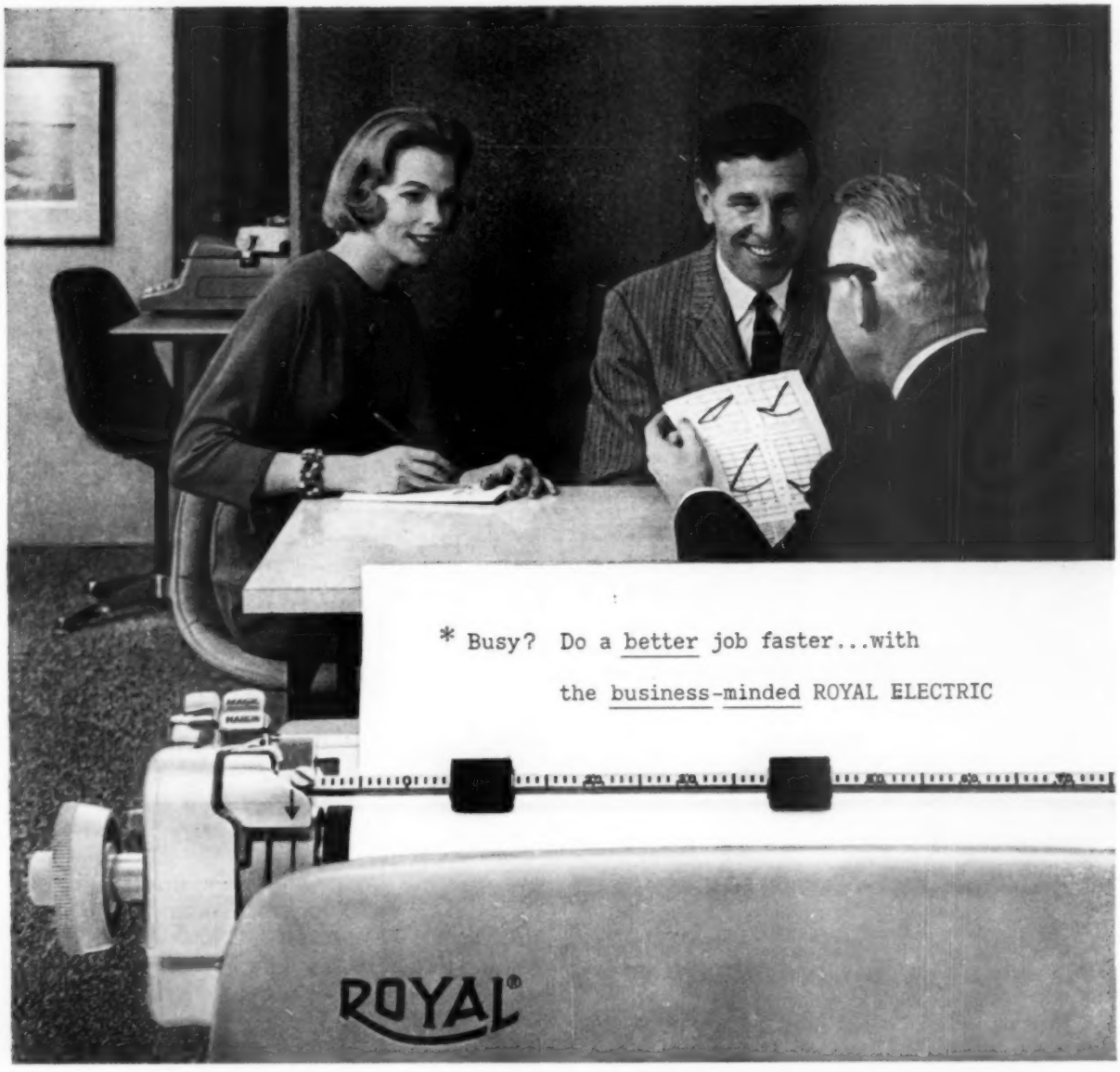


ION EXCHANGE RESINS

In planning expansion or new plants, many processors consider using Dowex® ion exchange resins to recover usable processing materials. Dow offers industry's widest line of ion exchange resins, backed by plenty of experience.

MINING CHEMICALS

Separan®, Dowfroth® and xanthates are a handy trio in ore recovery. These specialized chemicals make a tough job easier, more productive. Separan recovers metals ordinarily lost in uranium, copper operations.



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MATCHLESS REPRODUCTION! Choose the perfect type style for your own *special* business personality. You'll find a handsomely distinctive "trademark" among Royal's 74 distinguished type designs.

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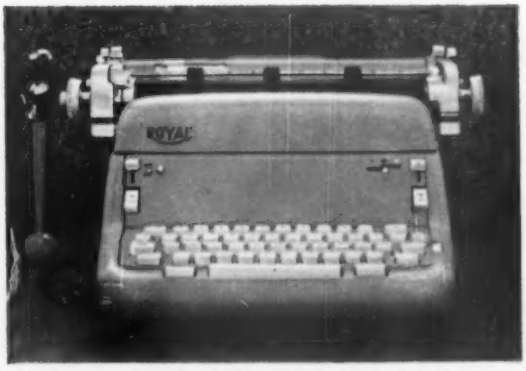
FREE TRIAL, BETTER TRADE-IN! Call your Royal Representative for a free demonstration today. You'll find him listed in the Yellow Pages of your phone book. Your old typewriters are worth more than you think in trade.



Now guaranteed for a full year, there are already more Royal Typewriters in office use than any other make.

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* GRAPHIC ELITE, one of 74 Royal type styles.

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PERSONAL BUSINESS

BUSINESS WEEK
APR. 18, 1959

You can discount most of the careless speculation over the extent to which tax returns will be audited. According to the Internal Revenue Service, the odds are:

• **Gross incomes of $10,000-and-up stand a 25% chance of being audited** —that means a close doublecheck of all facts and figures.

• **The higher the gross, the greater the odds.** Returns showing over $15,000 have a one-out-of-three chance of receiving special attention. And if your income is $25,000 or over, your return is almost sure to get a combing.

Incidentally, the penalty for filing late is 5% for each month, or fraction, with a 25% maximum—unless you can show "reasonable cause" for the delay. "Reasonable cause," by the way, is what it takes to convince your local IRS office.

The 5% penalty isn't the only rub. In addition, **you pay 6% interest on the delayed funds.**

In the silver lining department, **tax refunds usually are made within three to six weeks of the date of filing,** and generally you can count on your refund by May 30. After that, the government has to pay you 6% interest on the amount refunded.

—•—

There's another confusing tax matter—one that has been in the news lately. **That's the tax position of the executive (active or retired) who raises and shows prize animals.**

Sometimes this is carried on as a hobby, and losses are taken in stride. But sometimes what appears to be a hobby actually amounts to a business, and **in many such cases the owners fail to take tax deductions to which they're entitled.**

New York tax specialist J. Henry Landman outlines these rules:

A dog fancier, for instance, can be classed as a hobbyist, dealer, or investor. If he's a hobbyist, no expenses or losses are deductible. But if his kennel is a business, he's then either a dealer or investor—or both—and **is entitled to deductions.**

For example, if—as a dealer or investor—you run a kennel as a business, **you can deduct such expenses as dog food, veterinarian fees, insurance, light and heat, and animal transportation.** You can also charge off depreciation on the cost of buildings and equipment.

If you're classed as an investor, there's an added advantage: You may also charge off the costs of the dogs themselves, over an estimated seven-year period. In addition, a 1958 law says that in the first year you can claim an extra 20%.

Taxwise, it's better to be an investor than a dealer, though one person may be both. A dealer is one who buys, breeds, and sells dogs—like a securities underwriter. An investor occupies the relative position of an occasional trader in securities. The big advantage is that his profits, if any, are taxed at the low capital gains rate, whereas the dealer is subject to the high ordinary rate.

In any case, **the crucial tax question is whether you're operating a business,** and this, in turn, depends on whether you expect to make a profit.

Your sideline probably will get the business classification if you have (1) a business address and phone listing, (2) business stationery, (3) trade

journal subscriptions, (4) regular accounting books—and operate as a regular business. Another good way to insure your classification is to file tax form 1040F, the Declaration of Farm Business Income.

—•—

Watch for the outcome of the California trial run of the widely publicized plan to give "safe" drivers a 20% reduction in auto insurance rates.

This has been blown up too much. It may be offered in other states within a year, according to the National Bureau of Casualty Underwriters and the National Automobile Underwriters Assn., the plan's co-sponsors. On the other hand, **it could fold fast,** if the California test proves impractical.

In any case, don't count on the 20% bonus idea in your state. Local record-keeping practices and related factors will kill the idea in some sections of the country.

The California rates, effective May 1 on policies written by more than 200 companies, will apply to motorists having an accident-free driving record, without moving traffic violations, for a period of three years or more. The 20% rate reductions will be offset by rate increases for reckless drivers.

Abstainers' note: One new company will insure only drivers who can prove they haven't had a drink for at least five years.

—•—

Are you a perennial victim of poison ivy or poison oak? About eight out of 10 people are more or less susceptible. Often a person who considers himself immune will get hit by a heavy exposure, and find that he was wrong.

Although similar products have been on the market for years, **a new non-prescription drug is proving especially effective—Aqua Ivy-AP tablets** (manufactured by Syntex Chemical Co., New York, $4.95 per 100). **The routine is simple:** one tablet every second day for two weeks, then one daily for two weeks, and finally two daily for two weeks, will produce immunity for a year. Tests show 95% effectiveness.

Caution: Tablets should not be taken during the acute stage of poisoning.

—•—

Golfing department: **At least two new golf balls are designed to take a few strokes off your score,** particularly if you tend to be a bit shy on distance. Spalding's "Distance Dot" is supposed to give you 10 to 15 extra yards off the tee. Some pros even banged out an extra 25 yd. with this ball, says Spalding.

The other ball is the "Ram" by Brass Ram Corp., Bay City, Mich. It uses a special du Pont nylon core and is said to add 10 to 20 yd. to your drive. Both balls retail for $1.25 and are sold through "pro" shops.

While you're waiting for warmer days, you might get some **indoor golfing** from a new book, Golfers at Law, by Geoffrey Cousins (Knopf, $3.50). It's a history of the rules of the game, warm, humorous, and informative.

—•—

For the home that has everything: a small television camera. The 10-lb. instrument can be connected by closed circuit to your home TV set. Possible uses include swimming pool monitoring, nursery observation, door watching. Available in New York through Abercrombie & Fitch. Cost: $1,495, including installation and a year's service (Dage Television, Michigan City, Ind.).

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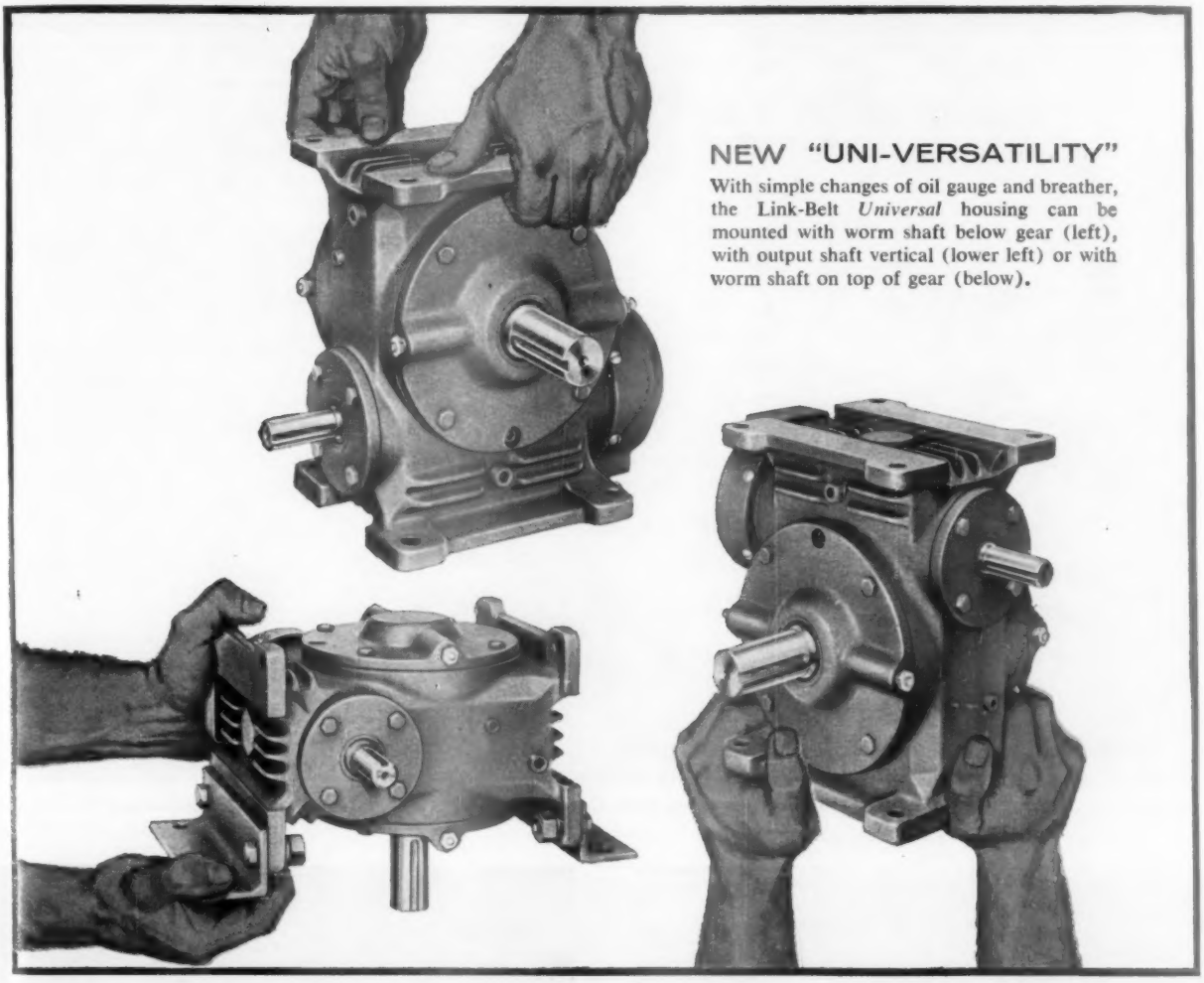
This "worm" turns to mount any way



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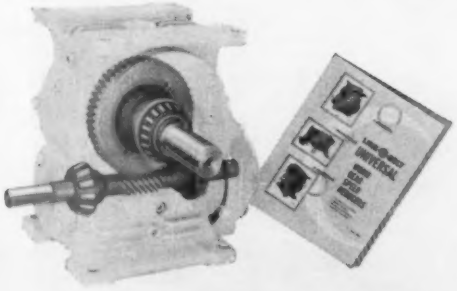

Folder 2724 describes Universal worm gear speed reducers having 2½", 3", 3½" and 4" centers with ratios from 5⅛:1 to 60:1.

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MANAGEMENT

British Brass Learns New Ways

SCHOOL WITHOUT PROFS is rule at Administrative Staff College, leading British "management school," where top brass "share experiences" in three 12-week sessions a year.

The presence of top brass in the classroom is part of the revolution under way in the character and practices of business management in Britain. The United Kingdom, with two world wars behind it, is undergoing an upheaval involving the adaptation of ideas and techniques developed mostly in this country. This is the second of two articles on British management today.

The men on these pages—all from the upper echelons of British management—are doing something that would have caused their predecessors of only a few years ago to harrumph with contempt. They are studying management, an occupation that would have seemed patently ridiculous to their predecessors (as it still seems to many of their contemporaries). Ability to manage was then considered to be a talent acquired through heredity and developed only through experience.

The activities of these men and the school they are attending, the Administrative Staff College at Henley-on-Thames, 36 miles from London, are symptomatic of revolutionary trends in British management—trends that have much in common with current developments in American management.

These trends are perhaps less far-reaching in Britain than in the U.S. But they are more radical for Britain because many of them are at odds with

CAMPUS is at Henley-on-Thames, 36 miles from London; early 19th Century building was formerly home of Viscount Hambledon.

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MORNING BREAK in college routine takes top British brass to banks of Thames. Groups at Henley are selected to give coverage of a wide range of management functions.

tradition in a society that is much more tradition-minded. And they embrace new attitudes toward personnel that are tied in with a social upheaval.

• **Common Denominators**—The Administrative Staff College is the nearest British equivalent to the Advanced Management Program of the Harvard Business School, in which businessmen go back to the classroom to keep up with new management ideas and methods. Before World War II Britain had no such institution.

That the college now exists—and is supported by a bluebook of British companies—is evidence of the progress of two ideas that are alien not only to British business but to the British temperament generally. These are the notions that managers can be made, not born, and that there are techniques of management that can be isolated, studied, and applied.

Many Britons, like some Americans, would challenge both ideas. Yet these assumptions are behind the striking postwar growth in both countries of management education programs sponsored by companies, universities, and trade and professional groups. In the U. S., the American Management Assn. has taken a prominent role in this movement, and its meetings have drawn large numbers of businessmen.

I. Learning the Practical Way

There have been differences, however, in the way these trends have developed in the two countries. In Britain, even more than in the U. S., management training activities that focus on actual practices have gone over better with executives than those that emphasize theoretical principles. The differing fortunes of the Administrative Staff College and another postwar institution, the British Institute of Management, point up the contrast.

• **No Long-Hairs**—The Staff College at Henley grew out of wartime dinner conversations of a group of industrialists. It is not connected with any university, despite its name—and, if anything, its bias is anti-scholastic.

Unlike the Harvard Business School, where instruction is built around case studies often presented by professors, the Staff College bases its method on the work of the students (or "members") themselves. The basic unit is the syndicate, a group of 10 members who tackle a subject under a chairman from their own ranks. There are no professors as such, only an advisory "directing staff"—mostly from business and governmental management. Visiting lecturers are chiefly specialists from industry and commerce.

Partly, this method is a product of necessity. Henley lacks the time and money to develop case studies, and Britain has only a handful of professors competent to teach advanced management subjects.

But, more than that, the method was adopted as the only one British businessmen would accept. Sir Noel Hall, the Staff College principal, and his colleagues simply didn't believe that British executives would sit in class to learn management from a professor.

• **Results**—Indeed, it's hard to get any Henley staff member to admit that anything at all is taught there, let alone a science of management. It's their story—and they stick to it—that the college's purpose is to bring management men together to share their accumulated experience and thus break out of the specialist mold.

Nevertheless, through subtle guidance, lectures, and a lot of reading, the members cover roughly the same ground

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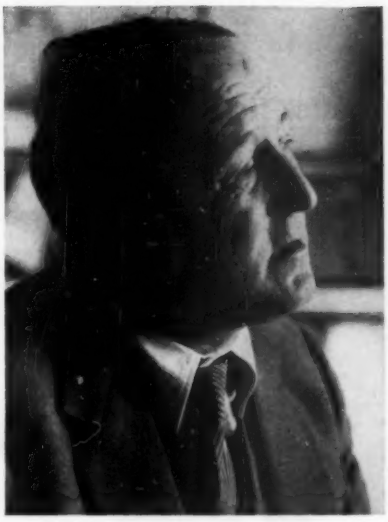

PRINCIPAL Sir Noel Hall heads the Administrative Staff College at Henley.

as that covered in the Harvard program. They emerge with an awareness of most of the current techniques—and language—of management.

Henley's courses are booked well in advance. Admission to them now means that a man is almost certain to move up the management ladder—perhaps as much because of painfully careful selection as because of the training.

• **Ambitious**—The British Institute of Management, on the other hand, started with a more theoretical point of view than Henley. And it has been much less successful, at least in terms of what it set out to do.

BIM was supposed to coordinate the various associations concerned with specific aspects of management and also to develop and spread new concepts of systematic management.

With government money plus industry subscriptions BIM in 1947 set up shop in a big way. It acquired an imposing building in London's West End, complete with restaurant; established a research department; and began issuing reports and holding conferences.

But BIM came perilously close to falling flat on its face. One reason was the hoopla with which it started—almost the kiss of death in Britain. And British businessmen got the feeling they were being told how to run their businesses by a lot of theoreticians, and they weren't having any.

• **Fresh Start**—Recently BIM has lowered its sights. It has moved to more modest quarters, and disclaimed any pretense of being a research organization. It now presents itself as a service group, providing information when asked and disseminating, via literature and conferences, not theoretical management gospel but the best practices used by British firms.

The result is increased—and much needed—acceptance. BIM's Board of Trade subsidy has been steadily diminishing and will disappear completely after this year. Then it will have to rely on the companies that nominate its approximately 5,000 members. Activities at its central Management House in London have been cut back, and regional activities, largely through regional councils, expanded. These councils will help plan regional conferences and will encourage the burgeoning management education programs of British universities and colleges.

• **Campus and Office**—The growth in university-sponsored management education is a novel trend for Britain. Traditionally, businessmen have thought the dons had nothing to offer them and had better not try. The dons have thought commerce beneath serious study.

So there has been none of the interplay between industry and academy that has developed in America. The universities are not centers for research into management techniques. Not a single British school awards a bachelor's degree in business administration, and only one, the London School of Economics, offers an M.S.

Now the schools and offices are coming closer together. Many small technical colleges throughout Britain have courses or seminars for businessmen in specific management techniques or even comprehensive management development programs. Even the major universities are joining the trend. This year, residential summer schools at Oxford, Cambridge, and St. Andrews, for example, will take up such topics as management's social responsibilities, productivity, automation, and human relations.

However, it will probably be some time, if ever, before there are undergraduate courses in business administration. Even those Britons who have been converted to the idea that management can be taught doubt that there is much point in trying to teach it to the young.

• **Company-Run**—Even more striking is the growth of company-run training courses for management, probably the closest thing to a bandwagon in British management today. It has become nearly impossible for a company of any size to hold up its head without some kind of management training.

II. Going Up in the World

All this emphasis on management training is parallel to—and both cause and result of—a general upgrading in the status of British management. Businessmen—and business—have never had the status in Britain that they have in America. Traditionally, the nonfinan-

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cial reward of business success has been the opportunity to join the landed gentry. Business as an end in itself—a battle and a game absorbing the whole man—has attracted some individuals but has not become a general ideal.

The extent of British executives' commitment to business as a way of life is increasing, however. There are more and more who pace the floor, bark orders to secretaries, and carry on several telephone conversations at once. The men at the top of British business, as described in a recent issue of the British general magazine Encounter, should be familiar to the American reader. One of their chief characteristics, says the article, is drive. They work incredible hours, suffer from strain, and fear retirement. Their chief satisfaction is "the pleasure of the game."

• **Boardroom Invasion**—Another evidence of management upgrading is the operating executives' invasion of British boardrooms. Formerly boards of directors (where "management knowhow was thought to begin and end," to quote a management consultant) were made up of men largely drawn from or accepted into the upper middle class. Operating executives were looked on as hired hands and classed as tradesmen.

Today, boards composed mostly of operating executives are increasingly common. It has become respectable for the sons of upper middle class families to go into business as working members, not just at the boardroom level. And it has become increasingly possible for the sons of lower middle class and even working class families to work their way upward into the boardroom.

• **Crumbling Bars**—This trend has loosened, though it has not destroyed, the structure of British management. Of course, top management is still a long way above middle management. In Britain, doors to top executives' offices are guarded in depth. The chairman of one of the U. K.'s largest corporations recently expressed amazement that American executives "sit in their offices with the doors open."

Nevertheless, the gap between the top and the middle is narrowing in pay and in privileges. The middle ranks in Britain don't gain stature through decentralization and participative management to the extent they do in the U.S. But middle management is being offered direct and indirect financial incentives.

• **Money and "Perks"**—In terms of the real value of money, the lower ranks of management are getting higher take-home pay than before the war, while (due mainly to taxation) directors' pay is relatively lower than it was.

By American standards, all British management is low-paid. Even in top companies junior executives probably go only up to $4,200; middle manage-

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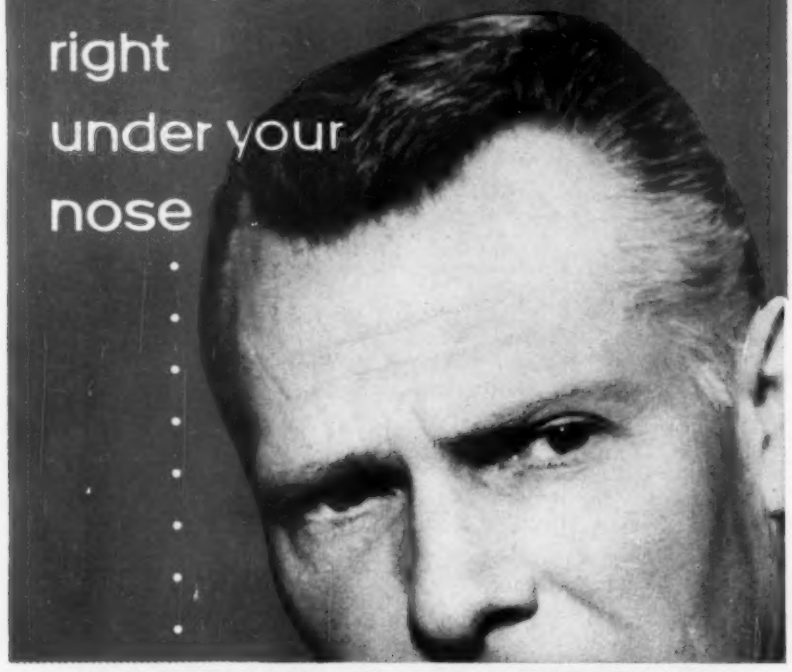

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ment, up to around $11,000; and managing directors, probably not much more than $80,000 to $85,000 in direct salary. The tax bite at all levels averages around twice as much as here.

But, as in the U.S., direct income is not the whole story. Expense accounts, cars and living quarters, and other "perks" (for perquisites) can at least double real income after a man reaches, say, department head status. Perks vary among companies—a public relations man last year shifted jobs because in the new one he would get a Jaguar instead of the Ford he had been driving—but help attract promising young men.

To escape some of the tax bite—and also to instill team spirit—more companies are issuing stock to management, in the form of bonuses and of special purchase plans. Cash profit sharing (at least 100 years old in Britain) seems to be declining. However, the number of stock bonus schemes (in 1954 there were 37 on a regular, prearranged distribution basis) is rising. Imperial Chemical Industries last year allotted $8-million to its plan, which includes all types of employees.

• **Personnel Policies**—These plans are part of a conscious effort to increase identification with the company on the part of the managed as well as the manager. More amenities are being provided for workers, too.

Before the war it was a rare company that even had a personnel officer. Now most companies with more than 2,000 employees have personnel men, and so do many medium-sized firms.

Henley Principal Sir Noel Hall thinks the most notable development in British management practice since the war has been in communication—that is, in getting word of top-level policies and decisions, and the reasons behind them, down through all rungs of management to the shop floor. House organs, a rarity before the war, now total about 1,500.

One of the most significant developments has been the spread of joint consultation committees made up of hourly workers and management representatives. These committees discuss all aspects of company policy (except those parts of the labor-management contract that are the specific concern of unions), disseminating policy downward and transmitting worker complaints and ideas upward. In some companies the committees even have some say in setting policy.

Although some segments of British industry have been working at it for a long time, there is still a long way to go in getting employees to feel an identification with the company. The basic reason is the class structure. The British employee still tends to identify himself with the working class in a way the American worker never has. **END**

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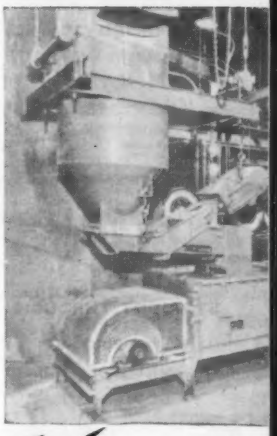

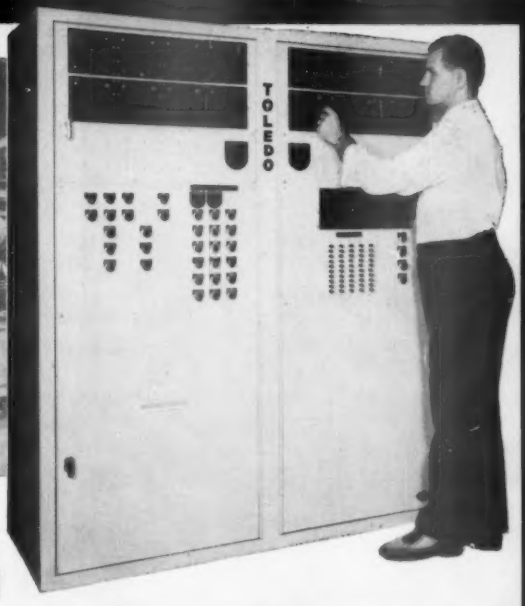

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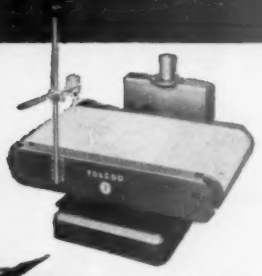

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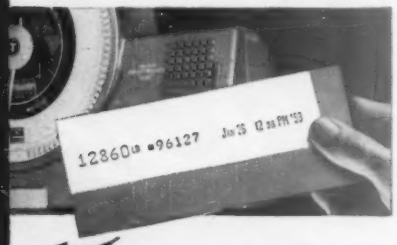

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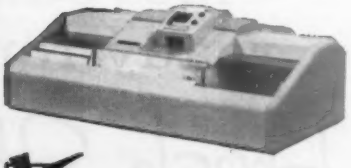

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In Management

• • •

Weaver Mfg., Clairol, S. G. Adams Acquired by Bigger Companies

A combination of high taxes, increasingly complex marketing and production techniques, and succession problems continually cause owners of small, closely held companies to sell out to larger corporations. **Last week, these big outfits picked up these small ones:**

• Detroit Harvester Co., the one-time farm implement maker, which since the late 1930's has been diversifying into lawnmowers, auto parts, pumps, castings, and hardware, bought Weaver Mfg. Co., Springfield, Ill., maker of heavy automobile garage equipment (lifts, wheel alignment equipment, car washing units).

• Bristol-Myers Co., maker of drugs, tooth paste, and toiletries, signed an agreement to buy Clairol, Inc., Stamford (Conn.) manufacturer of hair tints and dyes sold through beauty parlors.

• **Universal Match Corp.**, which also makes coin vending machines, machine tools, clerical forms, and magnetic amplifiers, received stockholder approval for its proposed acquisition of S. G. Adams Co., St. Louis metal products manufacturer.

• Reichhold Chemicals, Inc., announced it was buying Alkydol Laboratories, Inc., Cicero, Ill., like Reichhold a specialist in making synthetic resins.

• Grayson-Robinson Stores, Inc., clothing chain that last June bought the Peerless Camera Stores in New York City, now has added Willoughby's, another large New York camera store, to its holdings.

• • •

Dental Health Care Insurance Is Up-and-Coming Fringe Benefit

A new kind of employee fringe benefit is beginning to make its appearance in New York City and may soon spread to other areas: dental health care insurance.

Two plans now in operation cover some 20,000 workers—almost all enrolled within the past year—and both are launching big drives now for new takers. In addition, the New York State legislature has passed a bill allowing the state dental society to set up its own dental service insurance plan.

Group Health Dental Insurance, Inc., and Dental Insurance Plan, Inc., offer similar plans featuring fee schedules for various kinds of dental work. Cooperating dentists in the GHDI plan promise to charge no more than these fixed fees for families with total incomes under $5,000. Under DIP, the dividing line is a $6,000 income.

About a quarter of the some 75 groups signed up for the plans are unions, the rest employers. The cost of basic coverage for a single worker is $1.50 a month under DIP, $1.65 under GHDI. **Occasionally, the workers must pay the entire amount, but usually the fee is split with the employer.** For example, at the United Nations—the largest single employer group enrolled—the UN pays one-third, the worker two-thirds.

Similar dental health insurance plans are in operation on the West Coast tied in with Blue Shield programs, but these programs (originally designed for the ILWU-PMA) cover only workers' children. Local plans are being organized in other cities, and the New York City groups extend their coverage beyond the 17 counties in which they are licensed to practice by covering both local and out-of-town workers of companies headquartered in New York.

• • •

Special Telephone Network Connects Worthington Aides to Annual Meeting

Instead of relying on middle management to read communications from top management, Worthington Corp. this week delivered its message orally. At simultaneous gatherings in 52 domestic and foreign locations, some 2,000 key management and sales personnel heard speeches by Chmn. Hobart C. Ramsey and Walter H. Feldmann and then held their own annual meetings to discuss 1958 operating results and plans for the 1960s.

The addresses, delivered at Worthington's annual meeting in Newark Apr. 16, were transmitted by special telephone hookup to 16 U. S. plants. A dozen foreign locations in Europe, South America, Canada, and Mexico and 24 U. S. sales offices got the speeches by transcription.

• • •

Management Briefs

Commercial Solvents Corp. last week elected Maynard C. Wheeler president to succeed J. Albert Woods. Wheeler, a chemical engineer who first joined the company in 1923, had been acting president since Woods resigned in February as a result of differences with major stockholders, including members of the Milbank family. Jeremiah Milbank, Jr., was elected chairman of the executive committee.

Robert R. Young continues to figure in the news more than a year after his death (BW—Feb.1'58,p26). His widow, executrix, and sole beneficiary, **Anita O'Keeffe Young, is on the management slate for a new ninth directorship of Alleghany Corp.**, the holding company through which Young gained control of the New York Central RR. And Sid W. Richardson, Texas oilman whose large purchases of Central stock aided Young's takeover, has left the board of the railroad, giving his seat to a lawyer and frequent business partner, John B. Connally.

Harvard University's research and training programs in international taxation and economic development have been granted $900,000 by the Ford Foundation. Other recipients of Foundation grants announced last week included the University of North Carolina, for research in business administration; Johns Hopkins University, for research on the economic effects of present patent procedures; and five universities, for research in the application of social sciences to the study of business.

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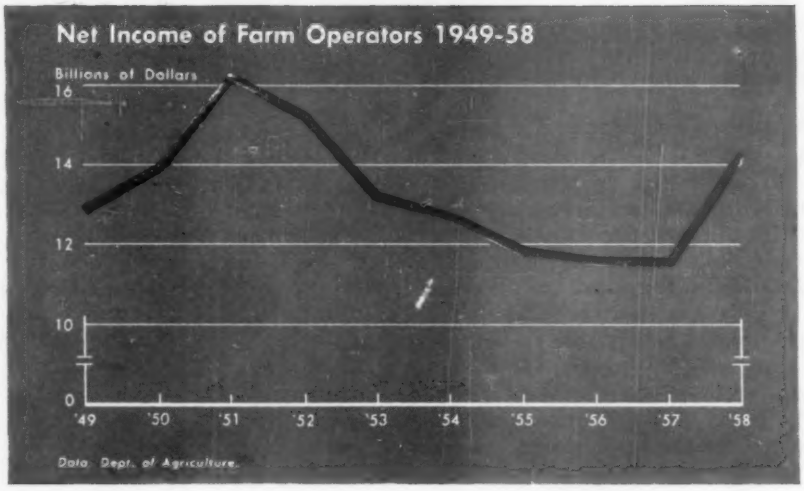
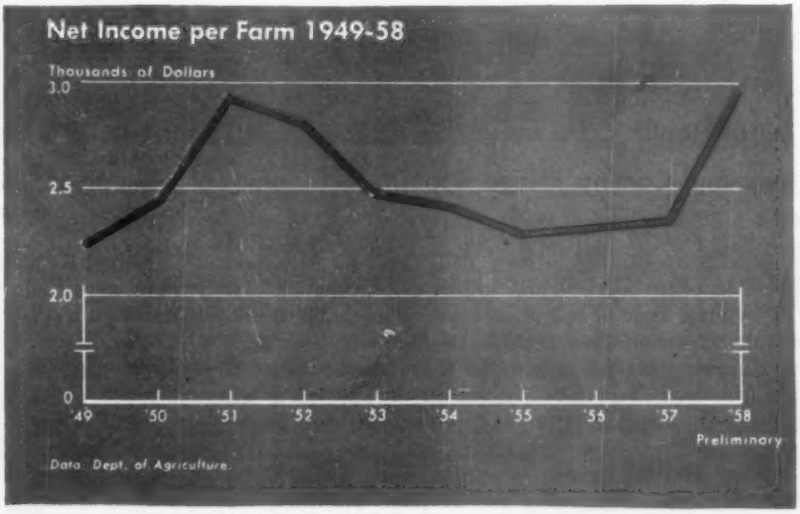
CHARTS OF THE WEEK



No Recession in Farm Income

As most of the nation struggled to weather the recession during 1958, U. S. farmers enjoyed a banner year. Net income of farm operators rose to $14.2-billion, 22% over 1957's $11.6-billion, and the highest level since 1952's $15.3-billion. The record to date was 1948's $17.8-billion.

Four factors contributed to the increase: higher prices of livestock, larger marketings from record crop production, delayed marketings of 1957 crops, and increased payments for acreage placed in the soil bank. These more than offset higher production expenses of the farm industry.



Harvest of Dollars Per Farm Up

Last year, the average American farmer reaped the highest net income since 1948 and the second highest on record (partly due to a jump in cash receipts, but also to the steadily declining number of farm operators). Net income per farm rose from $2,388 in '57 to $2,985 in '58, up 25%.

Within individual states, a widely varying income pattern emerges. Net income per farm ranged from $1,075 in West Virginia, where most farms are small family enterprises and much of the output is consumed by the family, to $13,123 in Arizona, where farming is big business. Eight states had net

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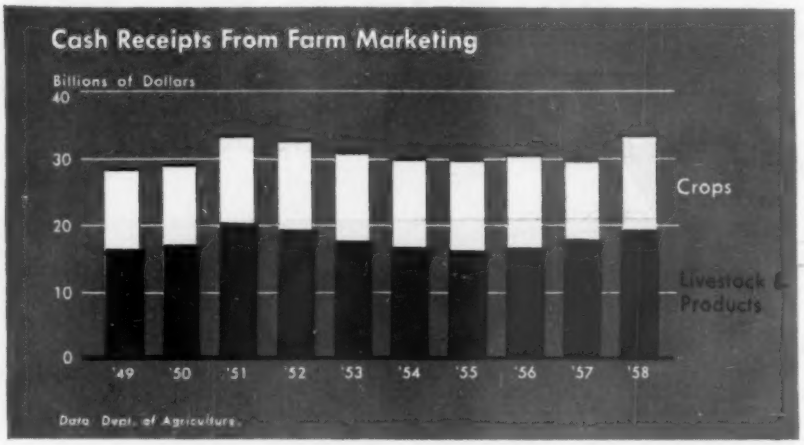
income per farm in excess of $5,000 per year: Iowa, North Dakota, Florida, Montana, Wyoming, Arizona, Nevada, and California. Five had less income than in 1957. Losses ranged from $2 in South Dakota to $380 in Washington.

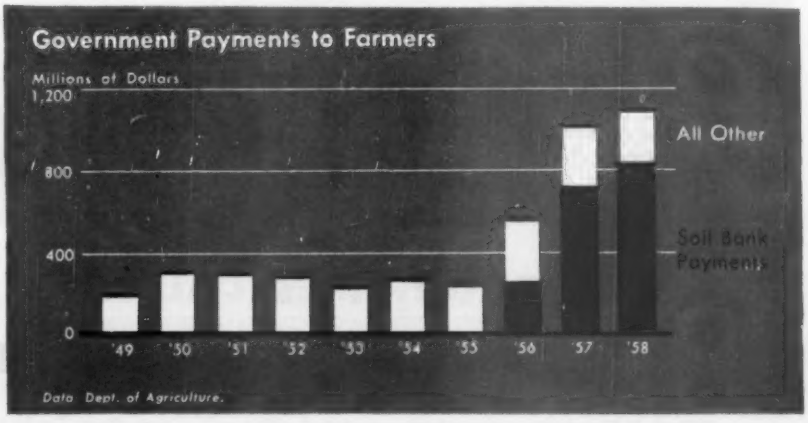


Bumper Crop of Cash Receipts

In terms of cash receipts from farm marketings—both crops and livestock—1958 was the best year in history for the American farmer. Receipts reached $33.2-billion, an 11% improvement over 1957.

In all but three states—Nevada, Oregon, and Kentucky—1958 cash receipts from farm marketings were higher than those of 1957. California, with $2.8-billion in receipts from marketings, leads all other states for the 11th consecutive year, followed by Iowa with $2.6-billion, Texas with $2.3-billion, and Illinois with $2.1-billion.

Kansas and Oklahoma more than doubled their crop receipts, while Nebraska rose 69% and Texas 58%. Montana enjoyed a 42% gain in livestock receipts, followed by Mississippi with 31%, and Wyoming with 23%. These were the major gains.



Uncle Sam's Contribution Grows

Since the introduction of the soil bank plan, government payments to farmers have increased at a very rapid rate. In 1958, direct payments reached $1.1-billion, almost six times 1949 payments and nearly five times those of 1955, the year before the soil bank program went into effect. During 1956, soil bank payments were $243-million, less than half of total payments to farmers. In 1957, they had grown to $700-million, almost 69% of total payments, and by 1958 reached $815-million, almost 75% of the total amount distributed to farmers.

Texas farmers received the largest amount—$122-million of which $100-million were from soil bank payments.

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A Fighter for Freedom Retires

With the resignation of Secy. of State John Foster Dulles, the free world has lost the invaluable services of one of its most powerful and effective advocates. His task, as he saw it, was to preserve peace and freedom in the world. And to that high purpose, Dulles selflessly devoted his vast knowledge and boundless energy.

Although controversy raged about him much of the time, he pursued his labors with the calm, relentless air of a man who had dedicated himself to a just cause and intended to follow the path of duty wherever it might lead. It was this quality, no less than his exacting mind and wide experience in foreign affairs, that gave him the unchallenged leadership of the West in the worldwide struggle against Communist expansion.

Dulles has never faltered in his belief that the free world must meet Soviet aggression with boldness and courage, that appeasement would only increase the danger of war. From his knowledge of the origins of World Wars I and II, he derived a strong conviction that the Communists must never be left in any doubt about our capacity, and our will, to meet any outright aggression with force.

His formulation of this policy frequently frightened the timid and less far-sighted. His phrase "massive retaliation" aroused a furor at home and abroad among many who failed to realize that Dulles was talking the only language the Communists could understand. When he frankly said that in dealing with such a foe we had to be ready to go to the brink of war, his enemies used the epithet "brinkmanship" in an effort to tear him down. Yet, today, it is generally recognized that Communist ambitions can be held in check only by our retaliatory power and by our determination to use it as a last resort rather than to surrender our principles.

For all his toughness, Dulles has never been a warmonger. At least once, in his early days in office, the idea of preventive war was presented to him as a possible answer to the Soviet menace. He rejected such a course as repugnant to the whole American tradition. He has been convinced that if the U. S. maintained both its power and its principles, we could win the East-West struggle without subjecting the world to a holocaust. And his record proves what a master he was in the difficult art of keeping an appropriate balance between power and principle—the two essential attributes of an effective foreign policy in a democratic nation.

If Dulles often seemed rigid in his diplomatic approach, it was not because he was inflexible, as so often charged. In beginning to prepare the U. S. position on Berlin, just before he was stricken down, he showed himself ready for a flexible approach to Soviet demands—one that would allow for the power realities in Berlin and still preserve basic Western rights there.

Like many another American Secretary of State before him, Dulles has had to bear the slings and arrows of partisan attack at home. From abroad he has had to meet a constant stream of poisonous propaganda from the foe and more than a few malicious barbs from our allies. Fortunately, he always has had the unfailing support of Pres. Eisenhower. And though he may have been prone to run a one-man show at the State Dept., he also has had the loyal support of an able group of assistants.

Perhaps the most extraordinary tribute to Dulles came when the nature of his illness was revealed some two months ago. Almost overnight, his detractors began to speak and write of him as an "indispensable man."

To serve his country and his fellow men everywhere, Dulles has given of his strength without stint. He has earned the respect and gratitude of all Americans. He has set a standard of devotion to duty and high principle that will be an inspiration for those who must now take up the unfinished business of securing peace and freedom in the world.

Capital Spending Up

Overcapacity was one of the crucial factors that caused the 1958 recession. And for the past year or more many economists have been afraid that the persistence of overcapacity would depress business for some time to come.

That's why the new McGraw-Hill capital spending survey (page 25) is particularly reassuring. It shows that capital spending is definitely on the upswing and will continue in that direction at least through 1960. This is despite the fact that industry's need for more capacity—even with a healthy rise in sales—is less than in earlier postwar years.

The rising capital spending trend, in the face of this capacity overhang, is due to a big switch toward emphasis on modernization and replacement of obsolete plant and equipment, which industry expects to continue through 1962. It is backed also by a continuing growth in outlays for research and development, which is expected to continue for the next few years.

Thus, the nature of the capital spending upturn, even more than its magnitude at this point, strongly suggests that the rise is not just a brief response to a temporary increase in new orders and a rise in profits. On the contrary, it looks like the kind of internally bred revival that promises to get the U. S. back on its long-term growth line and keep it there for a good stretch.

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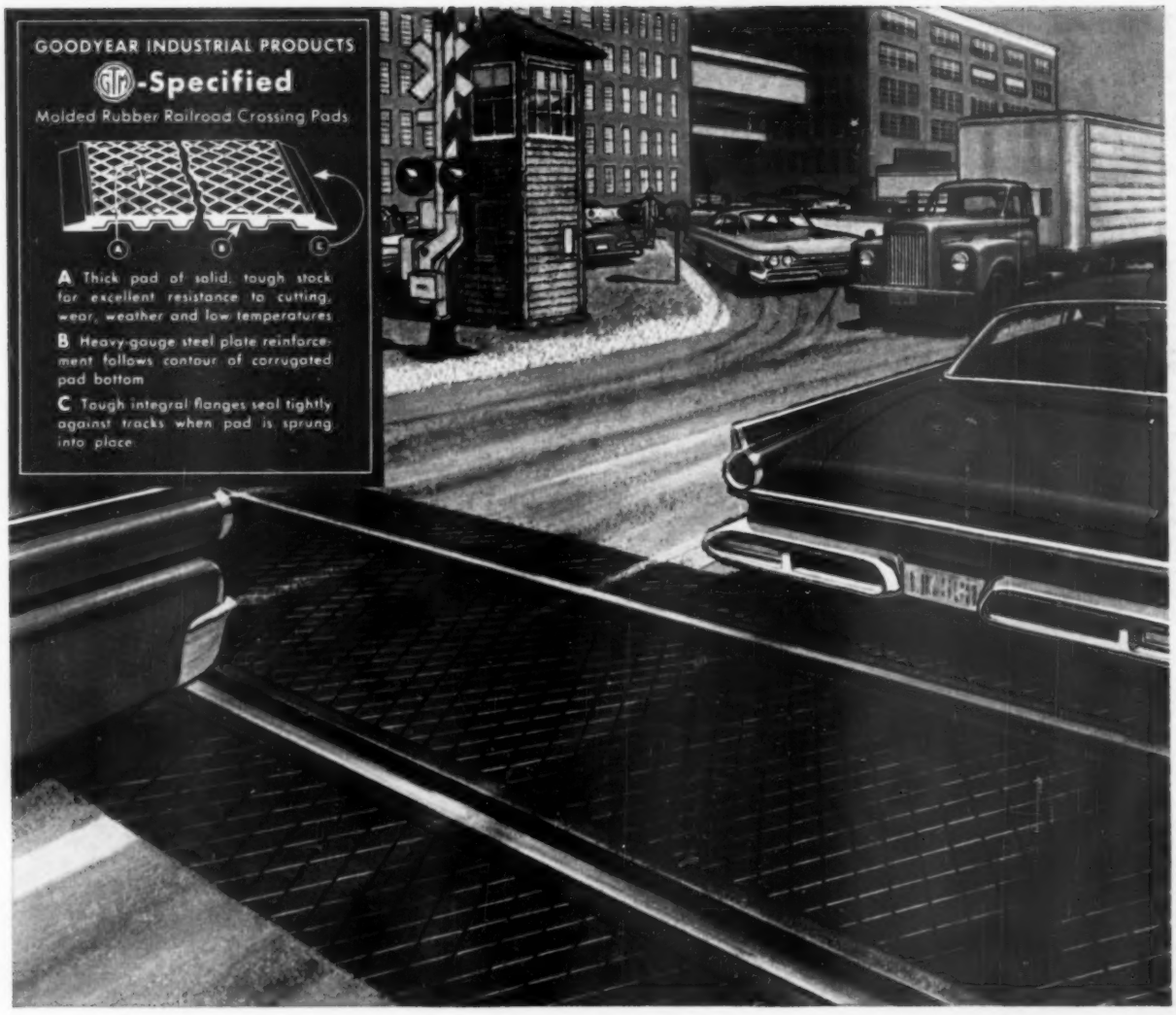
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It's changed the tune of working on the railroad!

Keeping down the cost of keeping up this bustling crossing was a headache to a major Northeastern railroad. For these tracks take a double-barreled pounding—from traffic feeding into a nearby thruway as well as the daily flood of cars in and out of the nearby factory parking lot.

Then a practical solution was suggested by the G.T.M.—Goodyear Technical Man. Why not try a rubber railroad crossing—constructed of unique steel-reinforced rubber pads developed for just such tough service? The installation was made in September 1956.

Already a proved money saver, the rubber crossing continues to rewrite the book on RR maintenance. For there's absolutely no sign of punishment from the estimated 10 million cars and 10,000 trains that have roared over and through it. *Yet no one's done any kind of working on the railroad here in better than 2 years—there's no maintenance need even remotely in sight.*

If you're looking for real economies like these in the care of rail crossings—highway or interplant—why not try the G.T.M.? He's been the man with the dollars-and-cents answer to countless railroads and industrial firms the country over. Write Goodyear, Industrial Products Division, St. Marys, Ohio, Los Angeles, California or Akron 16, Ohio.

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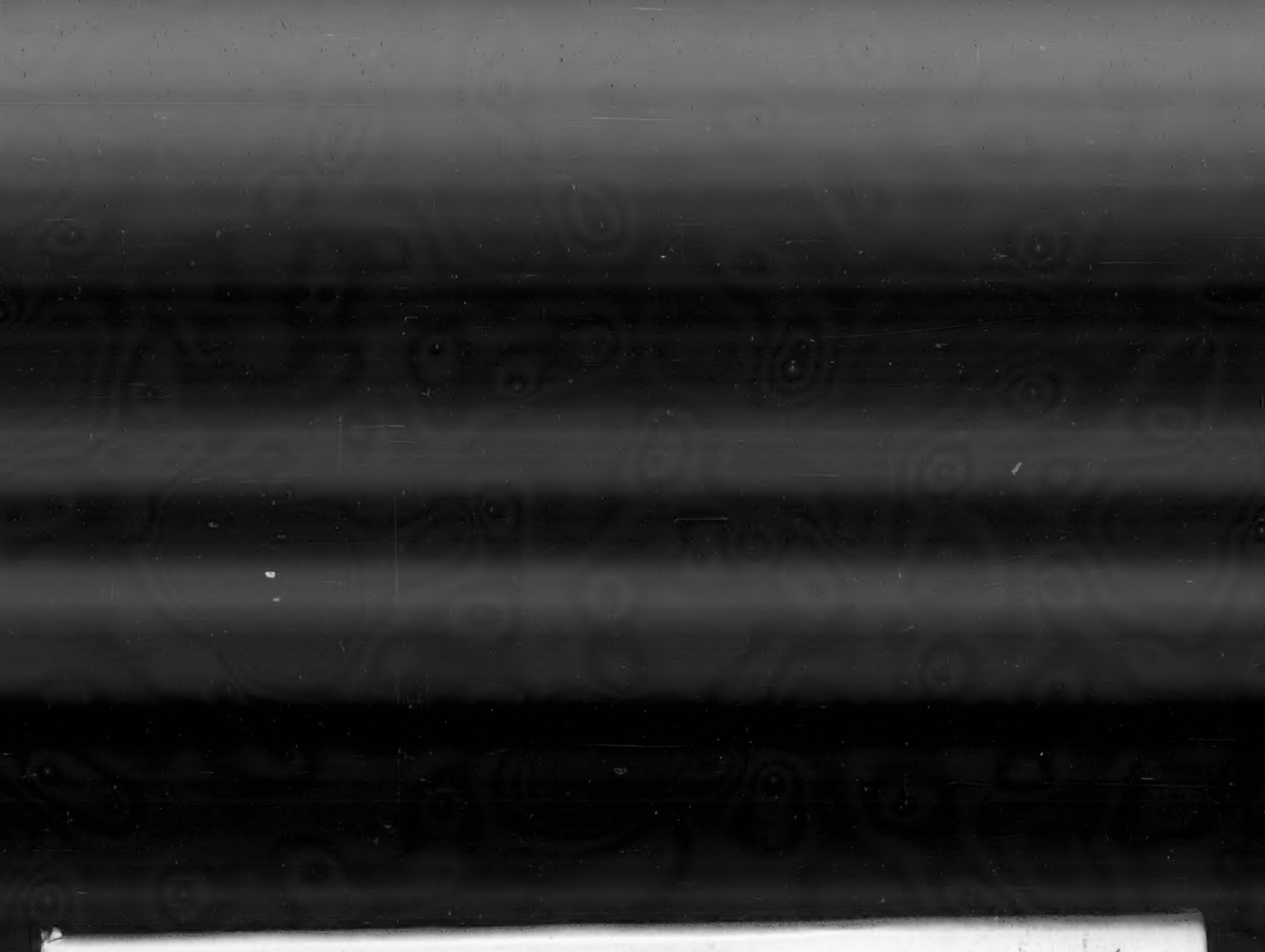
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